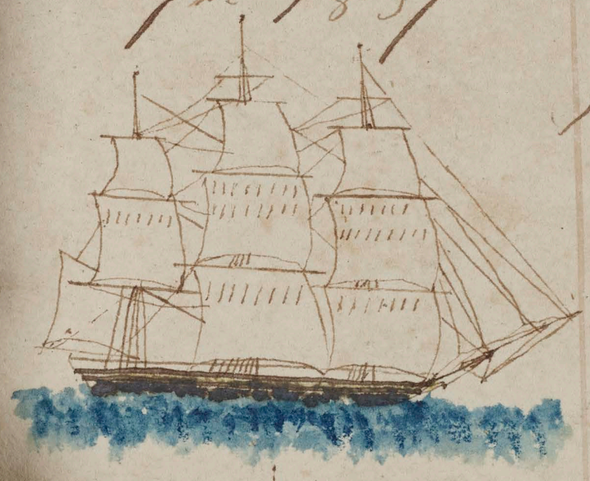
Remarks on Board Ship Illinois

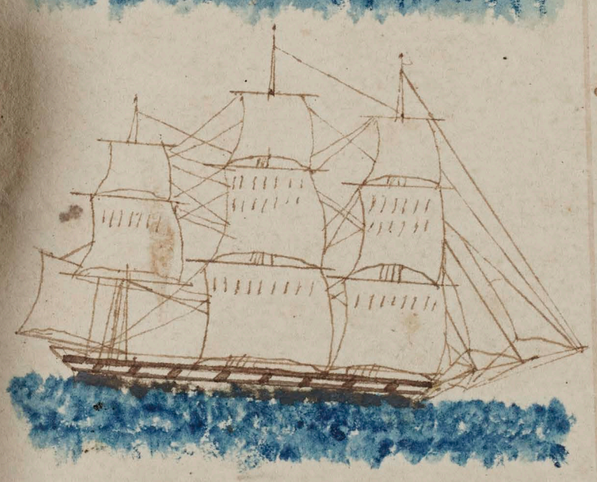
Wednesday Sept 6th 1837

Begins with fine & pleasant Breezes from the S.W. at 12 M. came to anchor in the outer roads at the Vineyard employed in clearing the Ship for sea Middle fine pleasant at 3 P.M. weighed anchor for sea at 11 A.M. cast anchor in the Vineyard Sound in 7 fathoms of water wind at S.W. & pleasant

Thursday September 7th 1837



Begins with fine & pleasant weather employed in getting fore & Mizzen top gallant mast aloft wind at W.S.W. at 2 P.M. got underweigh for sea at 5 the pilot left the Ship Gay Head light S.E. by S. Dist 3 miles Middle light ours S.W. at 3 P.M. tacked Ship to S.E. & at 8 A.M. took the W. at 11 A.M. saw two Ships bound in all hands employed in getting the boats



Friday September 8th 1837

Begins with fine and pleasant breezes from the S.E. & E. standing to S.E. by the wind ship under all sail at ½ past 3 P.M. tacked to the Eastward at 6 P.M. tacked to the W. with moderate breezes Middle & latter the same all hands employed in getting the boats

Lat 39 - 34 N. Long. by Chro. 73 - 35 W.

Remarks on board Ship Martha

Saturday September 9th 1837

Begins with moderate breezes from the S.E. course S.E. Middle brisk breezes the mind head the Ship off S.at 6 A.M. in main top gallt sail Latter employed in stowing the anchors on deck Latter calm

Lat 38-21 N.

Sunday September 10th 1837

Begins with calm and clear weather with a heavy swell from the S.E. at 4 P.M. light breezes West course S.E. Middle light breezes from S.E. Ship by the mind heading to the N. & E. by the mind Latter squally

Lat 38-51 N. Long by Chro. 70-42 W.

Monday September 11th 1837

Begins with with moderate breezes with squalls of rain Ship by the mind heading by the mind heading to the S.E. at 6 P.M. heavy squall of rain double reefed the top sails Middle squally steering E.S.E. new S.W. Latter the same employed in Ships duty

Lat 38-38 N. Long by Chronometer 68

Tuesday September 12th 1837

Begins with light breezes breezes Ship by the mind heading to the S.E. mind from the S.W. Middle brisk from the S.W. West steering E.S.E. Latter squalls of rain sent aloft the fore top gallant yard at 11 in fore top G. sail

Lat 38-30 N. Long by Chronometer 65-40 W.

Remarks on Board Ship Wrentham

Sunday December 3rd 1837

Begins with brisk breezes from the Sth
at 1 PM the last went on shore at the
1st of Tristan'd Acunah at 6 P.M returned
ned some of Barque backed of shore
brisk breezes from SW at 2 AM in fore
& Mizen topsails & dost reefed the main
course Ships to the SSW Latter blowing
heavy by ing to near the 1st heading to
the SSW more moderate

Monday 4th

Begins with moderate breezes made
sail & wore Ship heading to the WSW
wind from the NW middle watch of
the SE part of the 1st Latter brisk breezes
from the W Ship under Double reef top
sails & courses beating up to the 1st

Tuesday 5

Begins brisk breezes from the SW
Ships under Double top sails with heavy
squalls at 4 PM the Ships near abreast of
the landing place lowered a boat went on
shore after boys at 6 PM returned with
seven not having at 7 PM

Remarks on Board the Ship Montreal

Tuesday December 5th 1837

E S E blows strong from the Ns
Middle heavy squalls Latter more
moderate made sail on the Ship course
E S E cloudy weather

Lat 37 05 S Long by Chronometer 8 15 ½

Wednesday 6th

Begins with brisk breezes from the NE ½
course E S E at 4 P M got the L function
on deck Middle moderate breezes from
the N course E S E at Daylight set
studdensails fine & pleasant

Lat 36-59 S

Thursday 7th

Begins with fine & pleasant weather
wind from the N course S E by E at
4 P M bent another fore top sail Mid
light winds & thick weather Latter
moderate from the N & N steering
E S E under all sail caught a porpoise

Lat 37 50 S Long by Chronometer 4-55 W

Friday 8th

Begins with fine & pleasant weather
wind from the N & N steering E S E
bent another main top sail Middle
moderate breezes & cloudy Latter foggy
wind the same steering E S E employed
in repairing main top sail

Lat 38-01 S Long by Chronometer 2-33 W

Remarks on Board Ship Plymouth

Sunday December 17th 1837

Begins with calm at 2 P M light breezes from the Wt course S E by E
Middle moderate breezes from the Wt
& Wt Latter brisk breezes from the
S W & cloudy steering S E by E
Lat 37-08 S Long by Chronometer 18=40 E

Monday 18th

Begins with brisk breezes from the
S W & W course S E by E Middle moderate
breezes from the W & W with some squalls
squalls shorted sail Latter moderate made

Lat 37-11 S

Tuesday 19th

Begins with moderate breezes from the
Wt course S E by E at 2 P M heavy squalls of
wind & rain from the Wt double reefed
the topsails & struck the mizen steering
E S E Middle moderate at 4 A M saw
a ship of our Lee bow steering E S E
Latter squally from the Wt

Lat 38 08

Wednesday 20th

Begins with brisk breezes from the W
steering E S E under all sail squally at
2 P M carried away the fore top mast three
dead eyes boom in a squall reefed the top
sails Middle moderate made sail

Remarks on Board Ship Montezuma

Wednesday 20 December 1837

pour a squall off our lee beam by the
mind heading to the S'th Latter fine &
pleasant course & S E mind at 4 h

Lat 36 1/2 S Long by Chronometer 2 0 = 9 E

Thursday 21st

Begins with fine & pleasant weather
mind from the N by steering S E by E 1/2 E
under all sail Middle & Latter fine
& pleasant mind from the N course S E by E

Lat 36 = 40 S Long by Chronometer 30 - 31 E

Friday 22 nd

Begins with fine & pleasant
weather mind from the N & E Middle
strong breezes in top gallant sails &
split the jib Latter shift under Double
reef top sails employed in repairing
the jib & otter Duty

Lat 36 = 24 S Long by Chronometer 34 - 17 E

Saturday 23rd

~~Begins with strong breezes from the N by E~~
~~heading S S E by the wind at 6 P M tacked~~
~~Ship to the N E Latter mid Decks set~~
~~whole topsails & mizen top gallant~~
~~sail employed in repairing topsails~~

~~Lat 36 - 47 S Long by Chronometer 47 - 54 E~~

Remarks on Board Ship Warrior

Saturday December 30th 1837

Begins with brisk breezes heading to the S & by the wind middle part squally shortened sail Latter strong breezes from the S & E ship heading to the N E by the wind under topsails & courses

Lat 25-40 S Long by Obsn 44-07 E

Sunday 31st

Begins with brisk breezes from the S & heading to the N E by the wind at 10 P M wore ship to the S & E Latter brisk breezes ship under double reef topsails

Lat 28-49 S Long by Obsn 46-00 E

Monday January 1st 1838

SAW A SHIP

Begins with moderate breezes & cloudy weather wind from the E S E ship under double topsails & courses heading to the S by the wind at 4 P M tacked ship to the W & E Middle squally at 7 A M made sail & wore ship steering to the W tacked to the S

Lat 29-04 S Long by Obsn 45-04

Tuesday 2nd

Begins with moderate breezes & clear weather from the E S E heading to the S W Middle squally Latter moderate

sails

Lat 28-18 S Long

Remarks on Board Ship Montho

Wednesday 3rd January 1838

Begins with strong breezes from the E ship under 3 topsails & courses heading to the S & E by the wind Middle wind from the E & E Latter the same ship heading S E by the wind

Lat 29-12 Long by Obs 46-30 E

Thursday 4th D

Begins with strong breezes from the E & N E ship heading S E by the wind under topsails & courses whales came almost to the ship lowered but did not strike Middle & Latter moderate breezes

S A W SPER

M WHALES

Lat 30-01 Long by Obs 46-38 E

Friday 5th D

Begins with strong breezes from N E ship heading to the S & E by the wind at 12 tacked to the N Latter strong breezes heading N N W by the wind

Lat 30-12 Long by Obs 48-50 E

Saturday 6th D

Begins with brisk breezes from the E & E at 1 P M tacked to the S E at 12 tacked to the N & W strong breezes & squally Latter the same heading up N W by W at 12 tacked to S E

Lat 30 18 S Long by Obs 48-52 E

Sunday 7th D

Begins with brisk breezes from the N E ship ship heading to the S & E by the wind Middle moderate Latter the same ship heading E & E

Lat 30-11 S Long by Obs 50-32 E

Remarks on Board Ship Martha

Sunday January 21st 1838

Begins with moderate gale from the
S E ship under double reef top sails heading
E by the wind at 6 P M tacked to the S & E
Middle the same latter moderate

Lat 27-23 S Long by Chro 46-36 E

Monday 22nd Begins with strong breezes from the E heading
heading S by E by wind under double reef
top sails at 3 P M passed American merchant
ship bound to the Wd at 5 P M tacked ship
to the S & E Middle moderate at 7 A M
tacked to the S E employed in stowing down
sails main hatchway shifted the fore top sail

Lat 27-26 S Long by Chro 46-38 E

Tuesday 23d Begins with moderate breezes from the E
heading S E by the wind at 5 P M tacked to
S E Latter moderate set whole top sails &
main top gallant sail employed in mending
top sails

Lat 26-47 S Long by Chro 46-41 E

Wednesday 24th Begins with fine & pleasant weather wind
from the S & E heading to the S & E by the wind
at 5 P M tacked to the E S E at sunset shorten
sail middle moderate shortened sail
at 8 A M made all sail & A M tacked to the
E S E wind from the S E

Lat 26 45 S Long by Chro 47 28 E

Remarks on Board Ship Mary

Thursday January 25th 1838

SAW A SHIP

Begins with light winds from the N N E steering E by S at 6 P M calm at 1 P M light breese from the S S E at 6 the E by the wind Middle moderate Latter squally with thunder & lightning Saw a merchant Barque to windward

Lat 26-38 S Long by Chro 1.8 05 E

Friday 26th

SAW A Br BARQUE

Begins with light airs from the N E heading to the S S E by the wind at 5 P M boarded the British Barque from Sing ashore bound to London Middle under short sail heading to the E at 7 A M off N E at 10 off N wind at S S E

Lat 25-53 S Long 48-45 E

Saturday 27

SAW THE ISL OF Madagascar

Begins with moderate from the S S E steering N N W at 9 A M set stunsels sail heading to the S S W at 11 A M wore ship to the N E at 1 P M light made at sail at 10 A M saw the S E end of Madagascar

Lat 24-50 S Long by Chro 48-00 E

Sunday 28th

Begins with fine & pleasant weather winds from the S E steering N W got out the anchors & bent the Stream Middle laying off & on Port Dauphin fine weather ship under short sail at 10 A M ~~sent~~ sent in a boat to the Port

Remarks on Board Ship Wrath

Wednesday February 7th 1838

SAW FIN BACKS

THE LAND IN SIGHT

Begins with fine & pleasant weather at 12 M tacked to the E & E mind from the S & E saw fin backs at sun set shortened sail & tacked at day light tacked at 12 tacked to the S & E mind from the N & E the Land in sight

Lat 25-50 S Long by Chron 46-27

Thursday 8th

Begins with brisk breezes from the N & E heading to the E by the mind N. & E. to the same at 6 A M tacked to the N

Lat 26-11 S Long by Chron 46-09 E

Friday 9th

Begins with brisk breezes from the E & E & fair weather heading to the N by the mind at 5 P M tacked to the S E Middle & Latter brisk breezes ship under double reef topsails

Lat 26-20 S Long by Chron 46-50 E

Saturday 10th

Begins with brisk breezes from the from the N & E & E heading to the S & E by the mind at 6 A M tacked to the N at 8 saw a Barque of our weather bow steering to the West at 12 tacked to the S & W fine & pleasant

SAW A BARQUE

Lat 27 00 S Long by Chron 47-34 E

Sunday 12th

Begins with light breezes from the E & E & E by the mind breaking out after noon at set set shortened sail at day light made sail heading to the N & E fine & pleasant

Lat 26-02 S Long by Chron 47 34

Remarks on Board Ship Martha

Monday Feb 12th 1838

Begins with moderate breezes from the
E heading to the N.E. by the wind at 12 M.
tacked to the S at 10 M tacked to the N.E.
Latter brisk breezes ship under double
reef top sails employed in ships duty

Lat 25-46 S Long by Chron. 28-31 E

Tuesday 13th

SPOKE THE REAPER & CONNECT

Begins with brisk breezes from the E ship
heading to the N.E. by the wind at noon set
tacked to the S at 1 a m tacked to the N. at
Day light saw a Barque off our Lee bow
at 8 spoke her the Reaper of Salem 6 months
out 1400 Sperm saw another sail at 10 spoke
her the Connecticut of N London 8 months out
1500 W. whale oil

Lat 25-01 S Long 28-12

Wednesday 14th

Begins with moderate breezes from the
E.N.E heading to the S.E by the wind Middle
this noon at 2 p m more ship to the N at 6
p m tacked to the S.E by the wind in company
with the reaper

Lat 25-46 S Long 28-40 E

Thursday 15th

Begins with fine & moderate breezes from
E.N.E heading to the S.S.E at sun set shortened
sail Middle pleasant at 7 a m tacked to the N.
the Barque in sight

Lat 25-52

Remarks on Board Ship Martha

Friday February 23rd 1838

Begins with strong breezes from the NE by
SAW A SAIL — E heading to the N & W by the wind at 6 PM
SAW FINBACKS — wore ship and shortened sail at 12 more ship
to the N & E at Daylight saw a sail bound to the
W made sail fine & pleasant wind from the
E & E saw fin backs

Lat 24-02 S Long by Chron 48-18 E

Saturday 24th — Begins with fine & pleasant breezes from the E & S
heading to the N by the wind saw fin backs
SAW FINBACKS — at ½ past 4 saw a sail 1 point of bow at ½
PM spoke her the Banyan Keeper shortened
SPOKE REAPER — sail heading heading to the NE at 12 more ship
to the N & W at Daylight made sail at 6 A M
SAW A SAIL — more ship E & E wind from the N E fine &
pleasant at 9 saw a sail ahead a breaking over
after part of Molasses

Lat 24-20 S Long by Chron 49-30 E

Sunday 25 — Begins with fine & pleasant weather wind
the N E heading E & E by the wind saw fin backs
SAW FINBACKS — at sun set shortened sail at 12 had a squall
thunder & lightning with rain in fore & Mizen
topsails from the N W at 6 A M calm at 8 light
airs from the E & E steering N N E fine & pleas
weather employed in ships Duty

Lat 24.06 S Long by Chron 49-

Remarks on Board Ship Martha

Monday February 26th 1838

Begins with fine & pleasant breases from the
SE steering & WNW at sun set shortened sail
hauled to the wind heading to the S & E at 12 more
ship to the N & E at day light made sail steering
N.E. N.N.E & N steering N steering fine & pleasant
wind from the E & E

Lat 23-49 L Long by Obs 48-41 E

Tuesday 27th

Begins with fine & pleasant weather wind from
the E & E heading to the NW some porpoises at sun
set shortened sail & hauled to the wind heading
to the S & E at 2 a m more ship to the N & E at daylight
made sail steering N by E at 7 saw a sail N
our bar beam at ½ past 8 spoke the Banyan
Reaper of Salem saw fin backs

Lat 24-08 L Long by Obs 46-35-E

SPOKE REAPER
SAW FIN BACKS.

Wednesday 28th

Begins with moderate breeses heading to the
S S E by the wind in CO with the Banyan at 1 am
tacked to the N & E strong breeses from the E latter
the same

Lat 24-21 L Long by Obs 46-44 E

Thursday March 1st

Begins with strong breeses from the E ship
under Double reef top sails at ½ past 12 Kept off
N N W at ½ past 1 saw porpoises at ½ past 2 lowered Did
not strike at 4 came on board at ½ past 5 saw
a meteor at ½ past 6 lowered & struck at 8 got
hole at my side & more ship to the S & E

Remarks on Board Ship Martha

Thursday March 1st 1838

under Double reef top sails at 5 a m none ship
& commenced cutting at 11 finished at 12 spoke the
Margaret of St Johns

Lat 24-44 S Long by Chr 4 8-38

SPOKE THE MARGARET

Friday 2nd

Begins with strong breses from the E heading
to the N & E in Co with the Margaret at 4 P
tacked to the S & E employed in boating the
Land in sight Middle & Latter the same

Lat 25-46 S Long by Chr 4-8-16 E

SAW THE ISL OF MADAGASCAR

Saturday 3

Begins with strong breses from the S E
ship under Double reef top sails employed
in boating at 4 P M finished boating none
ship to the S & E Middle strong breses heading
to the S & E the Barque Reaper pressed to wind
ward of us at 9 none ship in Co with the Marg

Lat 25-51 S

PASSED THE REAPER

Sunday 4th

Begins with strong breses from the S E
ship under Double reef top sails heading to the
S & E at 5 P M 5 P M spoke the Margaret several
ships in sight at 10 P M none ship S & W strong
breses under Double reef top sail Latter in Co.
with the Margaret thick weather

Lat 25-51 S

SEVRL SHIPS IN SIGHT

Monday 5th

Begins with strong brese from the S E wet
& rain saw a Barque to windward at 7 P M
ship E & E made sail Latter rounding & gave
& margaret in sight

Lat 25-59 S

Remarks on Board Ship Margaret

Tuesday March 6th 1838

SPOKE REAPER & MARGARET

Begins with light breezes with rain & squally with variable winds at 3 P M Wore ship the Reaper & Margaret at sun set shortened sail heading to E & E by the wind Latter fine & pleasant steering as employed in storing down oil

Lat 25-47 S Long by Chr 50 20 E

Wednesday 7th

Begins with fine & pleasant weather winds from the S S W & light in Co with the Margaret Middle & Latter light breezes steering N & W winds from the S S W

Lat 25-06 S Long by Chr 50-05 E

Thursday 8th

Begins with light breezes from the S S W steering N at sun set shortened sail in Co with the Margaret Middle light breezes Latter the same steering N W fine & pleasant

Lat 24-42 S Long by Chro 49-33

Friday 9th

Begins with moderate breezes steering N W at 4 P M hoisted to the mizzen to the S & W winds from the S E spoke the Margaret kept off N W at 12 hoisted to the mizzen to the N & E at Day light made sail at 10 A M spoke the Margaret & Ann Parry none ship 14 months out 800 bbls.

SPOKE THE MARGARET & ANN PARRY

Lat 24-30 S Long by Chr 48-14 E

Remarks on Board Ship Martha
Friday March 16th 1838

Begins with moderate breeses from the E N E
SAW·A LARGE standing off shore at ½ past 1 saw a large sperm
SPERM·WHALE lowered all 3 boats but saw no more of him
at ½ past 3 came on board saw a sail off our
SPOKE THE lea bow standing to the W Middle rainy &
BARQUE squally at 12 wore in shore at day light
OCTAVIO wore in shore saw a Barque & Ship ahead
& SHIP at 7 a m wore off shore at 10 spoke the Ship
ENDEAVOUR Endeavour of N Bedford Capt Stetson 550
at 11 spoke the Barque Octavio Capt Gifford
7 months out 500 squally weather ship under
double reef top sails

Lat 24=16

Saturday 17th Begins with strong breeses from the N & E
heading in shore spoke the Florida at 2 P m
SPOK·THE saw whales lowered all 3 boats but did not
FLORIDA & strike at 7 P M shortened sail wore off shore
SAW·WHALES Middle moderate Latter wind from the
W steering to the N & E several ships in sight

Lat 24-24 S Long by Chr 48-54 E

Sunday 18th Begins with moderate breeses from the
W steering to the N & E at 4 P M luffed to the
N & W in Co with the Florida & Endeavour
at P M kept off E under short sail Middle
with rain at 6 a m in fore & miz top sails ship
No Obs to under close reef main topsail heading to the
S & W wind from the S

Remarks on Board Ship Warrior

Monday March 19th 1838

SAW 3 SHIPS

Begins with moderate gales from the S ship lying to under dost reef. mains top sail & staysails standing to the S & W at 10 P M wore ship Middle strong gales at Daylight saw 3 ships at 8 a m wore ship to the S W wind from the S E ship under dost-reef. top sails

Lat 24-44 S

Tuesday 20th

Begins with moderate gales from the S S E standing to the S W at 6 P M wore ship to the E at Day light kept off N at 10 a m N N W strong breezes from the S S E employed in repairing fore top sail squally

Lat. 24-11 S

Wednes 21st

SAW A SAIL & MADAGASCAR

Begins with strong breezes from the S & E wore ship to the W S W at 3 P M the land in sight hoisted to the wind heading S W double reefed the top sails bent the fore sail at 6 P M wore ship heading to the S middle moderate at 7 a m saw a sail to windward wore ship heading to the E wind S S E fine & pleasant

Lat 24-59 S

Remarks on Board Ship Wontha

Thursday March 29th 1838

Begins with strong breezes from the S.W.
stowing & by 8 at 2 P M saw the land
CAST ANCHOR at 3 P M Kept the ship N.E reefed reefed
IN AUGUSTINE the fore & Miz top sails at 5 P M cast an-
BAY chor in Augustine Bay in 13 fathoms wat
several ships lying at anchor Latter mod
breezes employed in ships Duty

Friday 30th

Begins with strong breeze from the E & E
employed in ships Duty at 4 P M the boats
returned with timber for the night heads
Middle heavy squalls from the E & E ship Swa
CAST ANCHOR yyed into 25 fathoms water let go the second
anchor at Daylight hove up both anchors
employed in warping up the ship at 12 cast
anchor in 7 fathoms water muddy bottom

Saturday 31st

Begins with moderate breezes from the
N.N.W Middle strong breezes from the Latter
wind from the N.N.W employed in repairing
the night heads

Sunday April 1st 1838

Begins with strong breezes from the N.W &
the Barque Hope cast anchor Latter light
breezes from the S

Remarks on Board Ship Martha

Monday April 2nd 1838

Begins with moderate breeses from the
N.E. & N. at 5 P.M. in the Ship Bengal of Salem
cast on shore Middle light breeses Latter
employed in repairing the night heads at
12 got a raft of water along side

Tuesday 3rd — Begins with moderate breeses from the
N.E. & N. hoisted in the raft of water & hauled
the ship out Middle light breeses Latter
employed on repairing the night heads

Wednesday 4th — Begins with light breeses from the N.E. & N.
Latter the boats went after more timber
for the night heads

Thursday 5th — Begins with strong breeses from N.E. & N.
at 5 P.M. the boats returned with more timber
Middle light breeses at 5 A.M. the Boat
left the ship to go after a breast hook latter
blacked the sides & side hauled the ship
off the other side fine & pleasant

Remarks on Board Ship Dromedar

Friday April 13th 1838

Begins with strong gales from the SSE
heading to the SS That AP M set close reefed top
sails Middle more moderate at 6 A M
made sail heading to the S & W wind
from the SE on bent the jib repaired &
I bent it again

Lat 25-22 S Long by Obs 42-30

Saturday 14th Begins with fine & pleasant weather wind
from the SE Middle light breezes Latter ones
from the S & W steering S E employed in
repairing the fore sail

Lat 26-15 Long by Obs 41-51 E

Sunday 15th Begins with light breezes from the S & W
steering S E employed in making bore
spun yarn Middle light breezes at 8 A M
squalls of rain Latter wind at W S W steering
S E fine & pleasant

Lat 26-43 S

Monday 16th Begins with moderate breezes from the W S W
steering E S E fine & pleasant weather at 6 P M
Double reefed the topsails Middle brisk breezes
Latter the same up fore & Mizen top gallant ma
flying jib to Obs wind at W steering E

Lat 26-50 S Long by Obs 46-00 E

Remarks on Board Ship Annawan

Tuesday April 17th 1838

Begins with moderate gales from the Ward steering E & E at 6 P M shortened sail Middle brisk breezes Latter more moderate made sail mind from steering E by N employed in matting spun yarn

Lat 26-07 S Long by Chr 48-00 E

Wednesday 18th

Begins with strong breezes from the S Eastward E by N at 2 P M shortened sail Middle moderate made sail employed in breaking out after beef & Pork

Lat 26-00 S

Thursday 19th

Begins with moderate breezes steering E & E steering to the N E by the mind saw 2 ships to leeward at 6 P M spoke them the Pantland of New Bang J Gen Pike of New Bedford Middle heading E & E by the mind under double reef topsails at Daylight made sail 2 ships to leward at 1/2 past 9 saw 2 Sperm whales to leward bound to windward lowered the boats but did not strike at 11 gave up the chase moderate & pleasant

Lat 26-30 S Long by Chr 48-00 E

SPOKE THE PORTLAND & NEWBURG SAW SPERM WHALES

Remarks on Board Ship Vrouw Ester

Friday April 20th 1838

Begins with moderate breezes from the
Eastward to the N & E by the wind at 2 PM
saw a Brig ahead bound to the Westward at 3 PM saw
sperm whales off our weather bow at 5
lowered after them at sun gone up the chase
whales going quick to windward came on
board Double reefed the topsails standing to the
N & E by the wind at 10 PM tacked to the Northward

Lat 24-00 S Long by Obs 48-35 E

SAW A BRIG & SPERM. WHALES

Saturday 21st

Begins with moderate breezes from the East
Ship under Double reef topsail heading to
N by the wind at 4 PM tacked to the N & E at
sun set shortened Middle moderate at
day light made sail at 10 A M saw a ship
to leeward wind E by E heading to the N & E
by the wind pleasant

Lat 24 - 38 S

SAW A SHIP.

Sunday 22nd

Begins with with moderate breezes from
the E by E heading to the N E by the wind at
sun set more ship Middle calm at day light
moderate breezes from the N E steering North
at 11 A M saw sperm whales at 12 lowered
whales 3 miles off

SAW - SPERM WHALES

No 06

Remarks on Board Ship Martha

Monday April 23rd 1838

Begins with moderate breezes from NE
heading to the N & E at ½ past 2 past meridian at
4 took the whale alongside & commenced cut-
ing at ½ past 6 finished stowed the fore & main
topsails laying to by the head until daylight
heading to the N & W hove the head in more
ship steering to the S wind from the NE
Lat 23-55 Long by Obs 48-42

Tuesday 24th

Begins with moderate breezes from the
E & E steering S at sunset hoisted to the mizzen
heading to the wind & employed in boiling
out & making sail steering S & W at 8 AM
saw 3 large whales ahead at 11 lowered at 12 struck

No Obs

Wednesday 25

Begins with fine & pleasant weather hats
off past to a large whale at sunset cut
from the whale & came on board shortened
sail wind at S W heading to the S & E at 2
AM wore ship to the E at daylight
modesate heading N & W at 7 AM saw
sperm whales at 8 lowered & struck soon lost
at 12 struck again

SAW SPERM WHALES

SAW SPERM WHALES

Remarks on Board Ship Martha

Wednesday May 2nd 1838

THE LAND IN SIGHT

Begins with fine weather from the SE heading to the E at 8 P M put the Boat out shortened sail Middle & Latter strong breezes from the E & E ship under double reef topsails the Land in sight

Lat 25 02 L Long by Obs 47-27 E

Thursday 3rd

Begins with fine weather wind from E & E heading to the S & E by the wind at 6 P M tacked ship Middle & first breezes at 6 A M tacked to the N on bent the main top sail & bent another the Land in sight

Lat 25-27 L Long by Obs 47-27 E

Friday 4th

Begins with brisk breezes from the E by E at 12 P M tacked to the N & Latter the same set Jib Spanker & Mainsail

Lat 26=18

Saturday 5th

Begins with brisk breezes ship under double reef topsails heading to the SE & E wind from the N Middle the same Latter light breezes with rain

No Obs

Sunday 6th

Begins with light breezes from the W to N & E employed in repairing topsails Mid moderate Latter the same steering from the N under double reef topsa

Lat 25-59 L Long 64 49

Remarks on Board Ship Wacousta

Monday May 7th 1838

Begins with moderate breezes from the N steering N N E Middle breezes from the S Latter the same steering N N E fine weather

Lat 23-46 N Long by Obs 50-00 E

Tuesday 8th

Begins with moderate breezes & fine weather wind from the E steering N by E at noon set shortened sail at 8 P M hauled to the wind heading to the E at 2 A M wore ship at daylight made sail steering N by E fine & pleasant

Lat 23-06 N Long by Obs 48-50 E

Wednesday 9th

Begins with fine & pleasant weather wind from the N E steering N by E at noon set shortened sail hauled to the wind heading to the E at 10 P M wore ship at 2 A M wore back to the N at daylight made sail latter fine & pleasant

Lat 23-14 N Long by Obs 48-23 E

Sunday 10th

Begins with fine weather wind from the N E steering N N E Middle steering N by E at 12 hauled to the wind with the head yards aback Latter steering N by E the Land in sight

Lat 24-29 N Long by Obs 47-37 E

Monday 11th

Begins with brisk breezes from the N E steering to the N & W by the wind at 4 P M tacked ship to the N & E Middle brisk breezes at 6 A M saw a ship to leward at 10 spoke her the Selma of & Bedford

THE LAND IN SIGHT

SPOKE THE SELMA

Remarks on Board Ship Montezuma

Sunday May 20th 1838

Begins with strong breezes from the S.S heading to the S & W the Messenger in sight at 8 P M took it to the S & S and Dist 6 miles Middle light breezes at 11 A M Sailed from the S & steering S.E the Land in sight

A o b o

Monday 21 — Begins with thick & cloudy weather wind from S.E middle the Land in sight at sun set in fore & main top sails & hauled to the wind at daylight set fore top sail & steered S wind from the S.S blowing a moderate gale the Messenger in sight trying to

Lat 24-49 S Long by Chron 48-16 E

Tuesday 22nd — Begins with a strong gale from the S.S with squalls of rain at 3 P M in fore topsail close reefed the main hauled to the wind heading E Middle the same Latter more moderate set Double reef top sails steered wind from the E

Lat 22-57 S Long by Chron 48-14 E

Wednesd 23rd — Begins with Brisk breezes from the E steering S under Double reef topsails at sun set shortened sail Latter squally the wind variable the land in sight

Lat 24-24 S

Remarks on Board Ship Morthoi

Thursday May 24th 1838

Begins with calm with sqrwalls of rain at 2 P M breeze from the E with rain heading to the S & E Middle the same Latter calm raining the Land in sight

Lat 23-44 S

Friday 25th

Begins with light breezes from the E & E heading to the S & E by the wind Middle & Latter the same with rain

Lat 24-45 S Long by Chro 49-00 E

Saturday 26th

Begins with strong breezes from the E & E heading S & E by the wind under double reefs main & Fore Latter the same

Lat 25-02 Long by Chro 50-08 E

Sunday 27th

SAW A SAIL

Begins with strong breezes from the E & E heading to the S & E by the wind under double reef Topsails at 12 tacked to the S & W the Latter the same saw a sail to leeward

Lat 25-02 S

Monday 28th

SPOK THE MESSENGER

Begins strong breezes from the E & E heading to the S & W by the wind at 2 P M spoke the Ship Messenger of N Bedford at 4 P M tacked Ship Middle strong breezes with squalls of rain Latter the wind shifted to S W with rain steering N E the the Messenger in sight

Lat 24-37 S Long by Ch 50-16 E

Remarks on Board Ship Martha

Friday 8th 1838

Begins with fine & pleasant weather wind from the S middle squally at 4 A M hove short calm at 6 A M light breeses weig anchor latter steering N N E wind at S

Saturday 9th — Begins with strong breeses from the S steering N N E at 6 P M luffed to the wind and double reefed the topsails & double reefed th topsails sounded in 25 fathoms water in Antongil Bay sounded several times through the night found the same depth of water at 6 am off N by E made all sail latter calm

Sunday 10th — Begins with calm at 2 P M light breeses fr the S and pleasant beating out of Antongil Bay at 6 P M squally double reef the topsails Middle the wind from the S W & pleasant made all sail heading to the S & E by the wind Latter steering N E employed in stowing anchors the Land 10 miles off

Monday 11th — Begins with strong breeses from the S steering N E at 2 P M shortened sail luffed to the w heading off shore at 1 A M wore in shore light made sail latter pleasant ha miles off E side of Madagascar

Remarks on Board Ship Martha

Tuesday June 12th 1838

Begins with fine & pleasant weather
winds from the S steering N Mid de steering
N & E under double reef topsails at 4 A M
hoisted the ship to the wind of shore with
the main topsail aback at Day light Kept
off shore 4 A M calm at 7 A M light breezes
from the S steering to the S & W by the wind
Land 15 miles Dist off S Beam employed
in toning down my yeins

Lat 12-02 S

Wednesday 13th

Begins with strong breezes from the S E
steering W at 1 P M passed the N point of
Mordecai at 2 P M a mend fell overboard
lowered boat & saved them Mid de heading
off shore 4 A M calm at 7 A M light breezes
from the S steering to the S & W by the wind
Land 15 miles Dist off S Beam employed
in toning down my yeins

Lat 12-10 S

Thursday 14th

Begins with fine & pleasant weather wind
from the S heading to the S & W by the wind unde
all said M de the same at 7 A M tacke
to the S E wind from the S & W

Lat 12-14 S Long by Obs 4 7-40 E

Friday 15th

Begins with a calm at 7 P M light breeses
from the N W heading heading to the S & E by
the wind at 11 P M tacked ship Do ther strong
breezes from the S & E heading up S

Lat 12 44 Long by Obs 4 7-56 E

THE LAND IN SIGHT

Remarks on Board Ship: Marathon

Saturday 16th June

Begins with moderate breeses from the S S W
at 3 P M tacked to the S E fine & pleasant Midd
SAW THE light breeses from the E S E heading to the S
LAND at day light saw the land off our weather
bow at 12 calm

Lat 13=10 Long by Ch 47 40 E

Sunday 17th Begins with calm at 1 P M at 1 P M light
breess from the W S W steering S at 4 P M at the
CAME TO Entrance of Passandava Bay at 8 P M
ANCHOR came to anchor in 14 fathoms water Midd
calm at 6 A M weighed anchor and came
to in a small Bay to the N in 10 fathoms
water muddy bottom

Monday 18th Begins with fine weather & light breeses from
the W N W Middle calm Latter employed in
breaking out the fore hole

Tuesday 19th Begins with fine weather wind from the
S W Middle calm at day light weighed anchor
Latter steering N with light breeses from
the W employed in stowing down

Wednesday 20 Begins with light winds from the W at 1 P M
CAME TO came too in a fine bay 9 miles to the E of where
ANCHOR we left in the morn employed in breaking out
hole Middle calm Latter employed in
Ship

Remarks on Board Ship Mianthi
Thursday 21st June 1838

Begins with moderate breeses AM employed in pointing ship Middle & Latter light breeses fine & pleasant

Friday 22nd Begins with moderate breeses & fine weather employed in pointing & getting wood Latter employed in blacking the bends

Saturday 23rd Begins finished pointing the ship got several boat loads of wood from the shore Latter employed in breaking out cask for water

Sunday 24th Begins with from the W finished wooding Latter fine & pleasant

Monday 25th Begins with brisk breeses from the West & En the Brig Kite came to anchor English trader at 5 A M went after a raft of water

Tuesday 26th Begins with fine weather the boats returned with water at 1 P M employed in stowing water at 7 P M the cook Deserted the ship Latter got some small spars from the shore

Remarks on Board Ship Martha

Saturday July 7th 1838

SAW.THE.IS OF JOANNAH

Begins with fine & pleasant weather steering N N W wind from the S E at p 12 saw the Isl of Joannah 2 Points off our S bow at sun set shortened sail standing to the S & W by the wind at 6 a m wore ship N N E at day light Joannah 6 miles Dist calm

Sunday 8th

CAME.TO ANCHOR

Begins with calm at 1 P M light breeses from the S running down the W side of the Isl at P M came to anchor at Joannah in 17 fathoms water 1 mile to the E of the town Middle calm the Bengal of Salem at anchor Latter 1 watch shore on liberty

Mond 9th

Begins with light breeses from N E at sun set all of the watch returned on board Latter employed in getting water

Tuesday 10th

Begins with fine & pleasant weather employed in stowing down water 1 watch on liberty Latter employed in getting of water & stowing it away fine & pleasant

Wednes 11th

Begins with fine & pleasant weather employ in stowing water Latter got the last from the shore. the Brig Kite of London came to an

Remarks on Board the Ship Martha

Thursday 12th July 1838

Begins with light breezes the S.E Middle the same latter employed in setting up rigging

Friday 13th — Begins with moderate breezes from the S.W employed in setting up rigging Middle fine & pleasant latter strong squalls of wind from the S.W give the ship more chain

Saturday 14th — Begins with strong squalls from the S.W Middle & Latter calm and pleasant.

Sunday 15th — Begins with fine & pleasant weather Latter the same

Monday 16th — Begins with moderate breezes from the S.E at 1 P.M hove short at 2 P.M got underweigh sailed & making steering S.W

Tuesday 17th — Begins with strong breezes from the S.E steering to the S.S.W by the wind at 2 P.M double reefed the top sails saw a sail 4 points off the weather bow at 6 P.M tacked to the S.S.W at 10 P.M tacked to the S.S.E Journal in Log Lat 12-10 Long by Obs 43-56

Remarks on Board Ship Thorn

Tuesday July 31st 1838

	Begins with strong breezes from the E Middle moderate Latter light breezes D.H. Pleasant
Wednesday 1st August	Begins with moderate breezes from the E Middle the same Latter calm D Pleasant
Thursday 2nd	Begins with with light breezes from the E Middle the same Latter light breezes from the W shot a wild hog on shore
Friday 3rd	Begins with light breezes from the E middle the same Latter light breezes from the W D Pleasant
Saturday 4th	Begins with light breezes from the E Latter strong breezes from the E D Pleasant
Sunday 5th	Begins with strong breezes from the E Middle D Latter the same
Monday 6th	Begins with strong from the E Middle D Latter the same
Tuesday 7th	Begins strong breezes from the E Middle moderate at 6 A.M. weighted the anchor

Remarks on Board Ship Panther

Tuesday September 11th 1838

Begins with fine & pleasant weather heading to the by the wind at 6 P.M employed in making spun yarn at sun set shortened sail Middle & Latter heading up S.S.E

Lat 28-05 S Long by Obs 40-58 E

Wednesday 12

SAW. FIN BACKS

Begins with fine & pleasant weather wind from the N.E ship heading to the N.E at sun shortens said light breezes from the N steering E.S.E Latter the same steering E.S.E employed in making spun yarn saw fin backs

Lat 28-11 S Long by Obs 41-34 E

Thursday 13th

SAW & SHIPS

Begins with light breezes from the N steering E.S.E Middle light airs latter the same & saw a ships bound to the N fine & pleasant

Lat 28-53 S Long by Obs 42-25 E

Friday 14th

Begins with moderate moderate breezes from the E heading S.S.E by the wind Middle strong breezes from the at 2 P.M Double reefed the top sail its Latter the same saw fin backs

Lat 29-26 S Long by Obs 44-03 E

Saturday 15th

Begins with strong breezes from the N.E steering S.E Latter light breezes made all sail employed in mounting boats

Lat 30-34 S Long by Obs 45-40 E

Remarks on Board Ship Martha

Thursday September 27th 1838

Begins with strong breezes from the S'W steering E by S at sun set set shortened sail hoisted to the wind heading to the S.E. at Day light made sail steering E.S.E by the wind wind at W'ly usually employed in repairing the main top sail

Lat 37 00 S Long by Chron 65-13 E

Friday 28th

Begins with moderate breezes from the W.S.W steering E.S.E at sun set shortened sail hoisted to the wind at Daylight moderate made sail steering N.E by E wind at W.S.W usually

Lat 36-17 S Long by Chn 67 E

Saturday 29th

Begins with strong breezes from the W.N.W steering N.E by E under Double reef topsails at sunset hoisted the ship to the wind heading to the S.W middle strong gale lying to under close reef main top sail at 9 A M the wind shifted to the S.W set Double reef topsails steering N.E

Sunday 30th

Lat 35-18 S Long by Chn 68-20 E

Begins with strong breezes from the W.S.W steering N.E & E at sun set shortened sail hoisted to the wind heading to the N.W at 6 A M Kept the Ship off N.E under Double reef T.S. sails saw black fish

SAW BLACK FISH

Lat 34 01 S Long by Chron 68-43 E

Remarks on Board Ship Martha

Monday October 1st 1838

SAW A
SHIP

Begins with strong breeses from the SW steering SE under double reef topsails at sun set shortened sail & luffed to the wind at 6 a m saw 2 ships to windward Latter heading to the SW blowing strong

Lat 34 54 S Long by Chr 64 27 E

Tuesday
2nd

SPOKE THE
TUSCARORA
SAW
SPERM
WHALES

Begins with strong breeses from the W steering to the S & W by the wind at 5 P M spoke the ship Tuscarora of Cold Spring 12 months out 600 W at sun set shortened sail at day light made sail steering S at 6 a m saw sperm whales lowered all boats & struck & saved no whale at 12 gave up the chase come on board

Lat 35-00 S

Wednesday
3rd

SAW SPERM
WHAELS
&
A SHIP

Begins with strong breeses from the W headin to the S & W by the wind at 2 P M wore ship at 5 P M saw sperm whales lowered all 3 boats & struck 3 whales broke 1 iron parted 1 iron strap & lost 2 lines & the whales verry rough at sun set come on board Middle heading to the S & W by the wind double reef top sails at 2 a m wore ship at 8 a m saw a ship ahead saw fin backs at 10 wore ship to the S W

Lat 35 51 S

Remarks on Board Ship Martha

Saturday October 13th

Begins with moderate gale steering E N E at sun set hove the ship to heading to the N & W at day light made sail steering N E wind at W N W thick weather under double reef topsails

Lat 34 53 S Long by Chr 75-31 E

Sunday 14th

Begins with strong breeses & thick weather steering N E at sun set lupphed to the wind & shortened sail Middle moderate Latter the same wind from the N W steering to the N & E by the wind at 12 wore ship

Lat 33 28 S

Monday 15th

Begins with fine & pleasant weather wind W N W steering S W under all sail Middle & Latter under double reef topsails thick weather saw fin backs

SAWFIN

BACKS

No Obs

Tuesday 16th

Begins with strong breeses from the N W steering S S W under double reef topsails thick & raining at sun set in fore & Miz top sails saw a Merchant ship 4 Points off our lee bow Latter steering S S W under double reef topsails wind from the W & blowing heavy

Lat 36=52 S Long by Chr 77=41 E

Wednesday 17th

Chro fast
m secon
2P = 26

Begins with moderate gale from the W steering S S E at 2 P M in fore & Miz top sails at 4 P M set the topsails Middle wind from the W S W steering S W under double reef topsail blowing heavy

Lat 38=26 Long by Chro 75-42 E

Remarks on Board Ship Martha

Thursday 18th October 1838

SAW A BRIG & SHIP

Begins with strong breeses from the W stearing E S E under all sail at 6 P M in fore & Miz topsails & luffed to the wind heading to the W Middle the wind at W N W Latter the sam blowing a gale ship under clost reef topsails thick with squalls of rain saw a ship & Brig stearing W on.

Lat 38 58 S

Friday 19th

Begins with a moderate gale from the S S W heading to the W at 2 P M in fore & Miz top sail Middle lying to under clost reef main topsail & staysails the wind shifted to the S W Latter set the fore sail

Lat 38-26 S Long by Chr 78-24 E

Saturday 20th

SAW A BRIG & SHIP

Begins with a gale from the S W ship ship under clost reef topsails stearing N W by W at 2 P M saw a Brig & Ship stearing to the S E at 6 P M saw the Isl of Amsterdam bearing W S W Dist 30 miles Middle the wind shifted to N E Latter split the main topsail under double reef topsails

Lat 36-53 S

Sunday 21st

Begins with a gale from the N W at 2 P M hove the ship too under clost reef main top sail & stay sail heading to the N E at 7 P M in fore sail middle more moderate made more sail at daylight made all sail wind from the W heading to the N & W by the wind moderate

Lat 35-43 S Long 78 35 E

Remarks on Board Ship Martha

Monday October 22nd 1838

Begins moderate breeses from the W steering to the N & W by the wind saw a fin back Midd & latter the same employed in repairing sails

Lat 34-30 S Long by Chro 78-49 E

Tuesday 23rd Begins with strong breeses from the W N W ship under double reef topsails heading to the N by the wind at 4 P M tacked ship latter moderate ship under all sail heading W by S wind from the N N W

Lat 33-51 S

Wednesd 24th Begins with strong breeses from the W N W heading to the S W Middle the same latter rainy at 8 A M the wind shifted to the S S E steering W N W thick & rainy

Long by Chro 76.37

Thursday 25th Begins with moderate breeses from the S S E steering W N W under all sail latter employed in repairing the fore topsail fine & pleasant breeses from the E N E steering W by N

Lat 34=37 S

Friday 26th Begins with moderate breeses from the E S E steering W by S thick fogg latter moderate gale ship under double reef topsails

No Obs

Remarks on Board Ship Martha

Saturday October 27th 1838

Begins with a gale from the Sth & Steering
W by S at 5 PM wore Ship lying to under close
reef main topsail & storysails at 6 PM the wind
shifted to the S. at Day light more moderate
set Double reef topsails steering S W by W

Lat 36=34 S Long by Chro 70=26 W

Sunday 28th — Begins with brisk breezes from the S steering
N W by W the same black fish observed often the day
DAW. BLACK FISH — Did not strike steering to the N & W under
all sail

Lat 36 03 S

Monday 29th — Begins with fine & pleasant weather wind
from the S steering W by N at noon set Double reefs
the topsails at 3 P M in fore & Aft in topsails
Latter lying to wind from the S blowing heavy
thick weather

No Obs

Tuesday 30th — Begins with moderate gale from the N W Ship
under close reef main top sail & fore sail & storysail
heading to the N & W Middle wind shifted to S S E
steering N W by W raining & thick Latter the same

No Obs

Remarks on Board Ship Martha

Wednesday November 7th 1838

SAW. WHALE

Begins with moderate breeses at 1 P M got the whale along side at 5 P M finished cutting in Middle heading to the S & W wind from the N W at 7 A M commenced boiling at 9 A M lowered for whales but did not strike very few

Lat 33-29 S Long by Chro 66-00 E

Thursday 8th

×

SAW. WHALES

Begins with strong breeses ship under double reef top sails wind from the N N W standing to the S & W by the wind at 5 P M lowered but did not strike at sun set shortened sail at 7 A M lowered for whales & struck

Lat 33=30- Long by Chro 66-50 E

Friday 9th

Begins with moderate gales from the N W Ship under fore sail & staysails heading to the S & W Middle finished boiling stowing down oil in the after hole squally

Lat 33=25 S Long by Chro 67-33

Saturday 10th

SAW. WHALES

Begins with strong breeses from the S & W heading W under short sail at 6 P M finished stowing down at 12 wore ship at Daylight saw whales at 9 lowered & struck at 12 struck at 12 got the whale along side

Lat 32-55 S Long

Remarks on Board Ship Swaithes

Sunday November 10th 1838

SAW A SHIP & WHALES

Begins with moderate breezes from the N & W at 2 P M cut the whale from along side Duy often at 4 P M lowered but Did not strike ship in sight to leeward Middle standing to the S & E at 2 A M more ship at 9 lowered for fine & pleasant weather

Lat 33-21 S

Monday 12th

SAW WHALES

Begins with fine & pleasant wind & the boats off in chase of whales at 6 P M gave chase come on board heading to S & E Middle the same at Day light saw whales at 7 A M lowered & struck at 9 took the whale along side at 12 finished cutting

Lat 33-55 S Long by Obn 66-16 E

Tuesday 13th

SAW A SHIP & WHALES

Begins with fine & pleasant weather wind from the S & E at 1 P M commenced boiling at 3 lowered for whales struck & Secured come on board gave a ship bound to the E strong breeze employed in boiling

Lat 33-10 S

Wednesday 14th

SAW WHALES

Begins with moderate breezes from the N & E heading to the W at 4 P M saw whales lowered after them struck one & off the all sunk at 10 P M got the one along side Middle watch from the W at 4 A M the whale parted from the ship at 7 got her again at 11 finished cutting

Lat 33-00 S

Remarks on Board Ship Mercator

Friday November 23rd 1838

SAW WHALES

Begins with fine & pleasant weather wind from the N standing to the N E at 5 P M finished boiling Latter employed in stowing Down saw whales lowered but did not strike heading to the N wind from the E & N

Lat 33-43 S Long by Chron 69-04

Saturday 24th

SAW WHALES

Begins with fine & pleasant weather wind from the E & N heading to the N at 5 P M lowered for whales struck & boated the line at 9 A M lowered & struck at 11 - got the whale along side fine & pleasant wind from the N

Lat 33-30 S

Sunday 25th

SAW WHALES

Begins with fine & pleasant weather wind from the N at 12 N finished cutting at 3 lowered for whales & struck at 4 P M got the whale along side at 7 P M finished cutting Middle wind from the E & E at 8 A M lowered for whales ~~struck the Barque~~ but Did not strike

Lat 33 45 S

Monday 26

SAW WHALES

Begins with fine & pleasant weather wind from the N E & E heading to the E under short sail employed in boiling at 7 A M lowered for whales struck & stove the Boat at 12 got the whale along side

Lat 33 - 32 S Long by Chron - 70-00 E

Remarks on Board Ship Pearl

Tuesday 27th November 1838

SAW WHALES & SHIP

Begins with fine & pleasant weather the wind from the E employed in cutting at 5 P M finish covered for whales & struck at 7 P M got him alongside Middle employed in boiling head at 7 A M commenced cutting at 10 finished reeling from the N heading to the N & W at 12 saw a sail

Lat 32 = 30 S

Wednesday 28th

SPOKE THE ALBION

Begins with moderate breezes from the N employed in boiling heading to the N & W at 2 P M spoke the Ship Albion Middle employed in boiling heading to the N & E strong breezes from the N

Lat 33 = 32 S Long by Chron 70 = 15 E

Thursday 29th

Begins with strong breezes from the N heading to the N & E by the reind employed in stowing Down & boiling at 8 P M the reind from the S W with rain Latter stowing Down the Albion in co

Lat 32 = 41 S

Friday 30th

SAW FIN BACKS

Begins with strong breezes from the S steering W under short sail finished stowing down Middle reind from the N E Latter the same employed in repairing a boat took fogg saw fin backs

Lat 34 = 00 S

Remarks on Board Ship Alnwick

Saturday December 1st 1838

Begins northerly & breezes from the S & E heading to the E by the wind under short sail at 8 P M saw whales but did not fasten at 12 a ship in sight to leeward at 6 A M backed ship to the N the fore & pleasant employed in cleaning down fine & plea
plenty of fin backs in sight

Lat 32 - 19 S Long by Chron 70 - 41 E

SAW A SHIP & FIN BACKS

Sunday 2nd

Begins with moderate breezes from the S & E heading to the S & W by the wind Middle the same at 8 A M saw a sail at 10 spoke the Albion Latter steering S E fine & pleasant

SPOKE THE ALBION

Lat 33 - 45 S

Monday 3rd

Chronometer fast
m sec
27 - 36
2 hrs 4 sec daily

Begins with fine & pleasant weather wind from the S W steering S E Middle heading to the E under short sail at 6 A M saw a sail to leeward wind from the S heading to the E at 10 spoke the Liverpool of & Bedford Capt Thomas 6 month out 700 bbls

SPOKE THE LIVERPOOL

Lat 34 - 50 S Long by Chro 72 - 14 E

Tuesday 4th

Begins with fine & pleasant weather in
So with the Liverpool wind from the S & W steering S E Middle the same at 8 A M leeward after them but did not fasten saw
2 ships to leeward

SAW WHALES & 2 SHIPS

Lat 35 57 S

Remarks on Board Ship Martha

Wednesday 5th December 1838

SAW SHIPS & WHALES

Begins with strong breezes from the N W
at 1 P M lowered for whales struck but soon
lose come on board saw the Barclays boats
fast to a whale stove all 3 boats the Liverpool
lowered her boats & struck & saved the whale
lowered our boats to assist the Barclays boats
on board Latter saw whales twice but did not
fasten spoke the America's boats of N Bedford

Lat 35 58 S Long by Obs 72-30 E

Thursday 6th

SAW WHALES

Begins with moderate breezes from the N & W
heading to the W at 12 M saw whales lowered
& struck at 5 P M took the whale along side
thick & foggy Latter the same employed in cutting

SAW 4 SHIPS

plenty of whales in sight at 10 A M lowered
& struck at took the whale along side 4 ships
in sight pleasant weather

Lat Obs

Friday 7th

Begins with light breezes from the N & W
at 1 P M commenced cutting at 4 P M finished

SAW A SHIP

saw the America cutting Middle heading
to the N & E foggy & rainy at 9 A M wore
ship to the S & W thick foggy employed in
boiling

Lat 36-05 S

Remarks on Board Ship Manilla

Sunday December 16th 1838

Begins with strong breezes from the Wh heading to the S & W by the wind Middle the same Latter fine & pleasant wind from the S steering S & W

Lat 33 = 34 Long by Obs 73-40 W

Monday 17th

SAW BLACK FISH

Begins with fine & pleasant weather wind from the S S E steering S & W at sun set shorte sail hoisted to the wind heading to the S & W at Day light made all sail heading to the S saw black fish lowered got a fine & pleasant

Lat 33-06 S

Tuesday 18th

SAW FINBACKS

Begins with light winds & pleasant weather wind from the S steering S under all sail Middle Latter the same employed in repairing sails saw fin backs

Lat 32-15 S Long by Obs 73-00 W

Wednesday 19th

Begins with fine & pleasant weather wind from the W steering S Middle & Latter the same employed in fitting rigging

Lat 30-20 S Long by Obs 73-02 W

Thursday 20th

SAW A SHIP

Begins with brisk breezes from the S steering S under all sail at 12 M S & W Middle the same at 10 a M saw a ship brisk breezes & pleasant

Lat 28-25 S

Friday 21st

Begins with brisk trades from the S E steering S & W Middle & Latter employed in sending up the light spars & sails

Lat 26-49 S Long by Obs 70=35 W

Remarks on Board Ship Martha

Saturday December 22nd 1838

Begins with brisk trades ship under all
sail steering N N W Middle & Latter the same
employed on ships Duty

Lat 25-09 S Long by Chr 168-43 E

Sunday 23rd — Begins with fine & pleasant weather steering
N W under all sail Middle light squalls of
rain Latter pleasant light trades

Lat 24-12 S

Monday 24th — Begins with light trades steering N W fine
& pleasant weather Middle & Latter the same
steering N W by W employed in painting ship
outside

No Obs

Tuesday 25th — Begins with light breezes Middle the same
Latter strong breezes heading N W by W by the
wind employed in painting the ship

Lat 21-08 S Long by Chr 163-13 E

Wednesday 26th — Begins with strong breezes heading N W by
the wind Middle & Latter squally with rain

Lat 20-32 S Long by Chro 160-17 E

Thursday 27th — Begins with strong breezes from the N W hardly
to the N & W at 12 M Double reefed the top sails
Middle & Latter fine & pleasant ship under all
sail steering W N W

Lat 20-23 S Long by Chr 160-17

Remarks on Board Ship Martha

Sunday January 6th 1839

CAME TO ANCHOR	Begins with brisk breezes at 3 P M came to anchor at St Marys in 15 fathoms water Middle light squalls of rain Latter the people on liberty shore at 4 P M all hands returned on several canoes from the shore with fruit fine & pleasant wind from the S E
Monday 7th	Begins with fine & pleasant weather the people on liberty at 4 P M returned on Board Latter employed in getting water off fine weather but very warm
Tuesday 8th	Begins with fine & pleasant weather wind from the S Middle & Latter light breezes employed in blacking the bends & side
Wednesday 9th	Begins with fine & pleasant weather wind from the S & E employed in heaving ship Midd & Latter rainy with the wind from the E & E
Thursday 10th	Begins with squally weather with wind & rain Middle & Latter the same employed in blacking the bends & towing down water

Remarks on Board Ship Brewster

Friday January 11th 1839.

Begins with light breezes & variable winds with squalls of rain Middle the same Latter pleasant wind from the S.E employed in getting water from the shore got a bullock off

Saturday 12th

Begins with fine & pleasant weather Middle & Latter rainy with variable winds got 5 hogs a few Potatoes & onions from the shore

Sunday 13th

Begins with light winds & variable with rain part of the ships company on Liberty 5 men that did not return at 5 a M got underweigh Latter the Capt left the ship with a boats crew for the Port beating the ship up between Madagascar & St Marys to the S wind from the S W & Westward

Monday 14th

Begins with light winds & variable at 12 M 1 of the men returned & reported the others on shore waiting for a boat at 6 P M the Capt returned on Board Middle the same anchored in 15 fathoms water between St Marys & Madagascar at 6 A M weighed anchor with the wind from the W steering S by W all sail

Remarks on Board Ship Brooklyn

Tuesday January 15th 1839

Begins with light breezes from the E & E Steering
S Middle calm Latter light breezes from the E
Madagascar in sight

Lat 15-16 S Long by Chr 50-03 E

Wednesday 16th — Begins with light breezes from the E steering
S by E fine & pleasant Middle moderate breezes
Latter calm employed in ships duty

Lat 19-17 S Long by Chr 50-38

Thursday 17th — Begins with calm & every warm Middle
light breezes with squall of rain Latter light
winds from the S & pleasant

Lat 20-01 S Long by Chr 50 37 E

Friday 18th — Begins with light breezes from the SE steering
S by W Middle & Latter wind from the SE
fine & pleasant

Lat 21-51 S Long by Chro 50-50 E

Saturday 19th — Begins with fine & pleasant weather steering
S by W under all sail at 5 P M saw a large
SAW. SPERM sperm whale going quick to windward
WHALES lowered all 3 boats but did not fasten at sun
set came on board heading to the S by the wind
at 12 tacked to the NW at 6 A M saw whales lowered
& struck 1 got & got the whale along side at 12 finished
cutting

Lat 22-18 S

Remarks on Board Ship Martha

Sunday January 20th 1839

Begins with moderate breezes from the E
steering N.W. at 2 P M comenced boiling at 5 o'clock
finished boiling heading to the S & E by the wind

Lat 22-30 S

Monday 21st

Begins with light breezes from the E & head
N. N. W. Middle part with rain heading
to the S & E by the wind unden short sail
Latter steering W. N. W. wind from the E
thick & rainy

N O W

Tuesday 22

Begins with strong breezes from the E steering
N. N. W. at 2 P M saw the Isl of Madagascar
Middle wind moderate & rainy at 6 P M
saw a large whale lowered the boats sprung
weather bow sight of the whale the land in
sight thick & squally

SAW A LARGE WHALE . SAW THE ISL. OF MADAGASCAR

N o O s

Wednesday 23rd

Begins with strong breezes from the S & E
heading to the E by the wind Middle light breezes
Latter calm the Land in sight Dist 20 miles

Lat 22-00 S

Thursday 24th

Begins with light breezes from the E & steering
to the N employed in repairing sails fine weather
Middle strong breezes Latter light & squally
employed in steering with the land in sight

N. O.

THE LAND IN SIGHT

Remarks on Board Ship Manxman

Friday January 25th 1839

Begins with moderate breezes the L & E steering
at 8 h the Land in sight 40 miles Dist Middle
calm with squalls of rain Latter light winds

Lat 24 - 30 S

Saturday 26th — Begins with light breezes from the S & E heading to the S & E by the mind the land in sight at sun shortened sail Middle light winds Latter the same from the S th steering S & E

Lat 24 - 24 S

Sunday 27th — Begins with moderate breezes from the S th steering S & E at 5 P M heavy squalls of wind & rain shortened sail Middle rainy with heavy squalls of wind Latter from the E ship under double reef topsails

Lat 0 0

Monday 28 — Begins with strong breezes & rugged weather with heavy squalls of wind & rain from the S steering E b E under double reef topsails Middle & Latter rainy with variable winds

Lat 22 - 35 S

Tuesday 29th — Begins with light breezes from the S & W heading to the S & E & the Land in sight Middle & Latter calm the

Lat 23 07 S

THE LAND

IN SIGHT

Remarks on Board Ship Martha

Wednesday January 30th 1839

Begins with light breezes from the S & E
heading to the S by the wind fine & pleasant
Middle heavy squalls of thunder &
lightning with rain Latter pleasant wind
from the S & E heading in shore the land in sight

Lat 24 01 S

Thursday 31st — Begins with moderate breezes from the S & E
heading S E by the wind at 2 a M tacked in
shore at 10 tacked off

Lat 25 00 S

Friday February 1st 1839 — Begins with fine & pleasant weather wind
from the E S E heading to the S Middle the
same at 1 a M Robert Welch died of a fever
which he got at the Isl of St Marys at
7 a M buried him squalls of wind & rain

24-17 S

Saturday 2nd — Begins with fine & pleasant weather wind
from the E S E at 1 P M saw sperm whales
lowered the boats at 2 P M struck at 5 P M
shortened sail & got the whale along side at
6 a M commenced cutting at & finished same
a Merchant ship bound to the W got yards round
ship to the S wind from the S & E

Lat 26-17 S Long by Chron 40-29 E

SAW. STERN WHALES & SHIP

Remarks on Board Ship Martha

Monday February 11th 1839

Begins with moderate breezes from the N E steering S at 10 minutes past 6 John Died of a fever which he got at the Isl of St Mary a native of the Isl of St Michaels Middle heading to the S & E under short sail ~~Latter~~ at 7 P M buried him Latter steering N N W

Lat 24=53 S Long by Chr 49=48 E

Tuesday 12th

Begins with brisk breezes from the N E steering S S W at sun set hauled to the wind heading to the S & E Latter heading to the N & W moderate breezes from the N E

Lat 25 08 S Long by Chr 49 59 E

Wednesday 13th

Begins with moderate breezes from the N E heading to the N & W by the wind Middle the same Latter steering N W by W fine & pleasant weather

Lat 25=29 S Long by Chro 49=17 E

Thursday 14th

SAW THE
ISd OF
MADAGASCAR

Begins with fine & pleasant weather wind from the E steering N W by W at 6 A M saw the Isle of Madagascar E side wore ship to the S & E Latter heading to the N W fine & pleasant the land in sight

Lat 24=41 S

Remarks on Board Ship Martha

Friday January 15th 1839

Begins with moderate breese from the S & E heading to the S & W at 6 P M tacked Latter wind from the S E heading to the S & W by the wind pleasant weather

Lat 25-52 S Long by Chn 48-27 E.

Saturday 16th

Begins with brisk breese from the S E heading to the S & W Middle the same Latter heading to the W & S & E wind from the E

Lat 26-08 S Long by Chn [illegible] E

Sunday 17th

SAW THE LAND & A SHIP

Begins with with strong breeses from the E heading to the S & E by the wind at 4 P M saw the Land & a Ship at 12 M tacked to the S & E at 6 a m saw a ship to leward Latter standing to the S & E

Lat 25-52 S Long by Chn 48-26 E

Monday 18

Begins with strong breeses from the E with squalls of rain heading to the S E under Double reef top sails Middle heading to the S under short sail Latter heading to the S & E by the wind

Lat 25-09 S Long by Chn 49-29 E.

Tuesday 19th

Begins with fine & pleasant weather wind from the E heading to the S & E by the wind at 6 P M

Remarks on Board Ship Martha

Tuesday February 19th 1839

Begins with moderate breezes from the S
heading to the N.E by the wind under double
reef topsails Middle standing to the Eastward
about said Latter heading to the N.E by the wind

Lat 25-29 S Long by Obs 48-49 E

Wednesday 20th

Begins with fine & pleasant weather wind
from the E heading to the N.E by the wind at
6 P M same the Latter Middle & Latter heading S.E.

Lat 25-40 S Long by Obs 49-29 E

Thursday 21st

Begins with moderate breezes from the E
heading to the S by the wind Middle the same
Latter at 9 A M saw a whale ship to windward

SAW A SHIP

at 9 M tacked to the S

Lat 25 41 S Long by Obs 49-46 E

Friday 22nd

Begins with brisk breezes from the E heading
to the S at 5 P M spoke the S Ship Endeavour
of N Bedford Capt Stetson 20 month 700 bbls
Latter heading to the N E in Co with the

SPOKE THE ENDEAVOUR

Endeavour

Lat 25-26 S

Saturday 23rd

Begins with brisk breezes heading to the N.E &
Middle heading to the S under short sail
Latter the same in Co with the Endeavour

Lat 25-30 S

Remarks on Board Ship Martha

Sunday February 24th 1838

Begins with brisk breezes ship under double reef top sails heading to the N E. Middle squalls of rain & wind at 7 am more ship to the N & W struck & rainy the Endeavour in sight to windward

No Obs

Monday 25th

SAW A BARQUE

Begins with strong breezes from the N E with rain heading to the N & W Middle heading to the S Latter heading to the N & W the Endeavour in sight to windward saw a French Barque bound to the W struck weather with rain

No Obs

Tuesday 26th

SAW BLACK FISH A BARQUE & SPERM WHALES

Begins with light winds & variable got a black fish Middle heading to the N & E at day light saw whales & a Barque lowered the boats but did not fasten spoke the Barque Reapers boats at 8 gave up the chase at 9 lowered again & struck

Wednesday 27th

SAW SPERM WHALES

Begins with brisk breezes from the S E at 1 P M got the whale along side & commenced cutting at 5 finished Middle heading to the N & E at day light saw a plenty of whales lowered & struck three stove the boat lost whale & line at 11 gave up the chase

Lat 24-26 S

Remarks on Board Ship Work

Friday March 15th 1839

Begins with fine & pleasant weather
wind from the N steering E Middle & E E
under short sail Latter fine & pleasant
saw fin backs got the Larboard pump up
to clean the well out

Lat 25-05 L

Saturday 16th — Begins with fine & pleasant weather wind
from the N by steering N E Middle under-
short sail Latter wind from the E heading
to the S E employed in repairing } sails

Lat 25-00 L Long by Chn 28-13 E

Sunday 17th — Begins with fine & pleasant weather wind
from the E heading to the S E by the wind
Latter the same fine & pleasant

Lat 26-38 L Long by Chno 28-54 E

Monday 18th — Begins with brisk breezes from the N E heading
to the E by the wind Middle & Latter the same

Lat 26 49 L

Tuesday 19th — Begins with fine & pleasant weather wind
from the S & E heading to the E by the wind Middle
under short sail at 6 a m tacked to the N & W
made all sail fine weather

Lat 26-46

Remarks on Board Ship Montezuma

Wednesday March 20th 1839

Begins with Light & variable winds with squalls of rain at 12 M squall from the SE heading to the N Latter wind from the NE heading to the N & W

Lat 26-29 S Long by Obs 49-32 E

Thursday 21st

SAW A BRIG & SHIP

Begins with moderate breezes from the NE heading to the N & W by the wind at sun set tacked ship & shortened sail Latter heading to the N saw a Brig & Ship bound to the N

Lat 25-55 S Long by Obs 49-30 E

Friday 22nd

Begins with fine & pleasant weather wind from the E & E Middle to the SE Latter to the E fine & pleasant weather

Lat 24-52 S Long by Obs 49-12 E

Saturday 23rd

Begins with fine & pleasant weather wind from the N E heading to the N & W by the wind at sun set shortened sail & tacked ship Latter heading to the N & W under all sail

Lat 24-26 S

Sunday 24th

SAW A SHIP & LAND

Begins with fine & pleasant weather steering N W wind from the E Middle by the wind Latter steering N W at 6 a m saw a sail bound to the W squalls wind at 9 a m saw the Land

Lat 24-26

Remarks on Board Ship Martha

Mondoy March 25th 1839

Begins with variable winds I squalls
of rain Middle the same Latter wind
from the E & E squally the Land in sight
Lat 24-51 Long by Obs 47-17 W

Tuesday 26th

Begins with strong breezes with squalls of
rain heading to the N E & at 4 P M tacked to
the S Middle heading to the S at 6 A M more
ship to the N E strong breezes strong breezes ship
under double reef top sails employed in repairing
the mainsail

Lat 26-15 S Long by Obs 47-34 W

Wednesday 27th

SPOKE THE ELECTRA

Begins with strong breezes from the E heading
to the N E Middle the same at 12 spoke the
Electra of N London 9 months out 1000 B V

Lat 26-41 S

Thursday 28th

Begins with strong breezes from the E in
Co with the Electra Middle heading to the
S Latter to the N E under double reef topsails
the Electra in sight to windward employed
in making spun yarn

Lat 26-43 S Long by Obs 47-30 E

Remarks on Board Ship Favourite

Friday March 29th 1839

Begins with strong breezes from the E&E
ship under Double reef topsails heading to
the N.E.E. at 3 P M tacked to the S at 12 tacked
to the N & Latter the same under Double
reef topsails

Lat 26-43 S Long by the 46-00 E

Saturday 30 — Begins with strong breezes from the E
heading to the N.E.E. by the wind at 4 P M
SPOKE THE FAVOURITE — spoke the Bangor Favourite of Ft Haven
5 months out no oil Middle heading to the
S.E.E. Latter the same Bangor in sight
ship under Double reef topsails

Lat 27-18 S Long by the 48-51 E

Sunday 31st — Begins with strong breezes from the E heading
to the N.E.E under Double reef topsails
Middle moderate winds Latter wind from
the S steering N.N.E under all sail the
Favourite in sight

Lat 27-08 S Long by the 49-08 E

Monday April 1st 1839 — Begins with moderate breezes from the
S.E steering N.N.E. at sun set shortened sails
Middle rainy Latter the same steering N.N.E

Lat 25-04 S

Remarks on Board Ship Montezuma

Thursday April 11th 1850

Begins with fine & pleasant weather at 2 PM spoke the Endeavour Middle heading to the E at 2 PM moved ship & Th Latter the same wind from the S & E several ships in sight

Lat 23 43 S

SAW. SEVRL SHIPS

Friday 12th

Begins with fine & pleasant weather at 12 M spoke Barque Pleiades of Nantucket heading to the S & W Middle the same at daylight 5 ships in sight

Lat 24 31 S

SPOKE THE PLEIADES

Saturday 13th

Begins with strong breezes from the E heading to the S in Co with the Pindus 6 other ships in sight Middle heading to the S & E under double reef topsails at 9 AM spoke the Ship John of N Bedford 10 months out 1700 WO several other ships in Co

Lat 24 30 S

SPOKE THE JOHN

Sunday 14th

Begins with strong breezes from the E heading to the S & E under double reef topsails in Co with seven ships Latter the same

Lat 26 18 S Long by Ch 47 00 E

Monday 15th

Begins with brisk breezes heading to the S & E by the wind Middle the same at 6 AM saw whales to windward Latter beating to windward in chase of whales in Co with the Pindus

SAW. SPERM WHALES

Lat 26 20 S Long 47 30 E

Remarks on Board Ship Martha
Tuesday April 16th 1839

SAW. SPERM WHALES

SAW A SHIP

Begins with brisk breezes from the ESE ship under double reef top sails heading to the N a plenty of whales in sight to wind ward at 6 P M wore ship to the S Latter heading to the N W saw a Merchant ship bound to the W employed in repairing fore top sail

Lat 27 00 S Long by Chr 46-38 E

Wednesday 17th

Begins with strong breezes from the E heading to the S W in Co with the Pindus Middle rainy with thunder & lightning wind shifted to the W Latter steering to the E under all sail squalls rain

Lat 26-36 S Long by Chr 48-38 E

Thursday 18th

Begins with moderate breezes from the Wester E under all sail at sun set double reefed the top sails Latter steering E in Co with the Pindus

Lat 26-28 S Long by Chr 48-55 E

Friday 19th

Begins with fine & pleasant weather steering E by N Middle the same wind W by N Latter wind from the N E heading to the S E by the wind in Co with the Pindus

Lat 25-02 S

Saturday 20th

Begins with pleasant weather wind from the N E heading to the S E by the wind Middle the same Latter employed in repairing main top sail saw fin backs

Lat 25-28 S Long by Chr 50-28 E

Remarks on Board Ship Brooklin

Sunday April 21st 1839

Begins with brisk breezes from the S.E heading to the S.E by the wind Middle the same latter thick weather ship under Double reef topsails

Lat 0 0 0

Mond 22nd — Begins with strong breezes from the S.E with main Middle wind shifted to the S.W steering to the S.E Latter the same with squalls of rain in Co with the Pinder

Lat 0 0 0

Tuesday 23rd — Begins with fine & pleasant weather wind from the S.E steering S.E by E under all said Middle & Latter the same

Lat 23-33 S Long by Ks 53-34 E

Wednesday 24th — Begins with fine & pleasant weather wind from the S.E steering S.E by S Middle & Latter the same

Lat 21-57 S Long by Ks 52 20 E

Thursday 25th — Begins with brisk breezes from the S.E steering S.E by S at 3 saw whales at 5 lowered the boats but did not strike at sun set gave up the chase Middle steering S.S.E in Co with the Pinder strong breezes employed in repairing the fore sail

Lat 19-37 S

Remarks on Board Ship North

Sunday April 26th 1839

Begins with brisk breezes from the S.E steering
N.E & bent the fore sail Middle heavy squalls of
wind & rain double reefed the top sails Latter do
again the S.E in fore & Miz top sails close reefed the
Main heading to the N.E in Co with the Pondus

Lat 17 - 20 S Long by Obs 54 - 40 E

Saturday
27th

Begins with strong breezes from the E & S.E heading
to the N & E by the wind ship under double reef top sails
Middle & Latter the same with squalls of rain

Lat 16 25 S Long by Obs 54 - 40 E

Sunday
28th

SAW A BRIG
&
WHALES

Begins with strong breezes from the E.S.E heading
to the N & E by the wind at 6 P M in fore & mizen top
sails more ship to the S at 2 0 M saw a Brig
at 4 a M more to the N E at 6 a M saw whales
lowered all 3 boats do Ends in Co with the Pondus

Lat 16 - 20 S

Monday
29th

Begins with strong breezes boats in chase of whale
the Pondus boat fast at 2 P M a own boat fastened
planted the line at sunset came on board Middle
beating up to the Pondus Latter heading to the N E

Lat 16 05 S Long 53 - 20 E

Tuesday
30th

Begins with strong breezes from the E S E heading to the
N & E by the wind at 5 P M tacked to the S Pondus to
leeward cutting at 4 a M more ship to the N E Latter ship
under double reef topsails

Lat 16 - 10 S Lon by Ch 53 - 31 E

Remarks on Board Ship Montha

May 1st Wednesday 1839

Begins with strong breeses from the E & E heading to the N & E at 7 P M more ship to the N E Middle squally Latter the same in Do with the Pindus

Lat 16 01 S

Thursday 2 — Begins with brisk breeses from the E & E heading to the N & E Middle & Latter to the N E under Double reef topsails

Lat 16-51 S Long by Obs 53-00 E

Friday 3 — Begins with brisk breeses from the E & E heading to the N middle squally Latter the fine & pleasant made all sail in Co with the Pindus

Lat 16-44 S Long by Obs 53-04 E

Saturday 4th — Begins with strong breeses from the E & E ship under all sail at 6 P M tacked to the N & E shortened sail Latter heading to the N & E under all sail

Lat 16-40 S Long by Obs 53 27 E

Sunday 5th — Begins with moderate breeses from the E heading to the N & E at sun set shortened sail Latter steering N by E under all sail fine & pleasant

Lat 17-18 S Long by Obs 52-24 E

Remarks on Board Ship Martha

Monday May 6th 1839

Begins with moderate breezes from the E steering S by E at sun set hoisted the ship to the wind heading to the S under short sail Lat steering S by E

Lat 17-25 S Long by Obs 51-00 E

Tuesday 7th

SAW MADAGASCAR

Begins with fine & pleasant weather wind from the E steering S by E at sun set shortened sail steering W & S Latter steering S under all sail at 12 a m saw the Isl of Madagascar

Lat 17+49 S Long by Ch 50 00 E

Wednesday 8th

Begins with light breezes from the E at sun set shortened sail Middle heading to the S & E Latter calm the Land 14 miles Dist

Lat 17-41 S

SAW THE ISL OF ST MARYS

Thursday 9th

Begins with calm middle light breezes from the S E making short tacks at Daylight saw the Isl of St Marys Latter calm

Lat 17-13 S

COME TO. ANCHOR

Friday 10th

Begins with light breezes from the S & E beating up between the Isl of St Marys & Madagascan in Co with the Pinders at sun set anchored in 19 fathoms water Latter light winds

COME TO ANCHOR

Saturday 11th

Begins with light winds & variable at 2 P M light breezes from the S E at 8 P M calm & strong head current came to anchor in 27 fathoms water at Daylight got under weigh light winds & variable

Remarks on Board Ship Martha
Sunday May 12th 1839

COME TO ANCHOR

Begins with strong current running to the S with light & variable winds at 2 P M come to anchor calm in the passage between St Marys & Madagascar at 2 A M made all sail with a light breeze from the S W Latter towing the ship to the anchorage with the boats the Pindus boats assisting us

Monday 13th

COME TO ANCHOR

Begins with calm at 1 P M come to anchor at the Isl of St Marys in 14 fathoms water Latter sent a raft of cask on shore for water at 11 the Pindus come to anchor light breezes from the S E

Tuesday 14th

Begins with light breezes from the S E Latter people on shore after water & wood fine weather

Wednesd 15th

Begins with light breezes from the S got a raft of water off Latter employed in stowing water

Thursday 16

Begins with moderate breezes from the S E employd in stowing water at 7 A M weighed anchor for point Point Larree at the Isl of Madagascar

Remarks on Board Ship Martha

Friday May 17th 1839

Begins with light breeses from the S & W beaten up to point Lance at 4 P M came to anchor

Saturd 18th Begins with light breese from the S at 7 am got 8 bullock on board from the shore made sail for St Mary's squalls of rain & variable winds at 11 A M came to anchor in 16 fathoms water

P

Sunday 19th Begins with light wind with squalls of rain at 5 P M got a raft of water from the shore Latter people on liberty

Monday 20th Begins with light winds from the S.W. Midd the same Latter getting off wood & water rainy

Tuesday 21st Begins with light winds & variable with squalls of rain sent a raft of cask on shore for water Latter steady rain getting off wood & water and stowing it away

Wednes 22 Begins with light & variable winds employ on killing bullock Latter pleasant- Latter pleas wind from the N employed in getting off wood & water

Remarks on Board Ship Martha

Monday June 3rd 1839

Begins with brisk breezes from the S.E Eb and
to the S.S.W by the wind at 12 tacked to the E at 7 AM
tacked to the S.W in co with the Pindus employ
in breaking out after water

Lat 20-27 S Long by Chron 50-00 E

Tuesday 4th — Begins with strong breezes from the S.E heading
to the S.S.W by the wind middle wind from the E
steering S.S.W at 6 a m Double reefed the topsails
SAW A SHIP — sprung saw a whale ship to leeward

Lat- 21-04 S

Wednesday 5th — Begins with strong breezes from the E course
S.S.W middle the same Latter steering S.W
under topsails & courses

Lat- 23-47 S Long by Chn 49-00 E

Thursday 6th — Begins with brisk breezes from the E steering
S.W under Double reef top sails Middle mostly
Latter the same with main ship under Double reef topsail

Lat- 25-49 S Long by Ch 48-06 E

Friday 7th — Begins with brisk breezes from the E steering
W under Double reef top sails Middle the
same Latter blowing moderate gale at 8 a m
lost sight of the Pindus at 10 lost reefed the
main top sail heavy squalls of wind & rain
steering S.W

Remarks on Board Ship Manilla

Saturday June 8th 1839

SAW THE LAND

Begins with a heavy gale from the E steering N W under close reefed main top sail Fore sail Stark & raising at 10 A M sighted & shunted the fore sail at 3 P M saw the Land of Madagascar more off Wore ship up N the land 15 miles Dist Latter steering N W under all sail

Lat 25-26 S

Sunday 9th

Begins with moderate breezes from the E steering S W along the W side of Madagascar at 6 P M had a heavy squall of wind & rain off the land shortened sail Middle pleasant made all sail Latter the same wind from the E & steering N Land 20 miles Dist

Lat 24-10 S

Monday 10th

COMETO ANCHOR

Begins with calm at 1 P M breeze from S W at 2 P M come to anchor in St Augustine Bay in 11 fathoms water Middle calm Latter the same plenty canoes along side with Potatoes Pumpkins & other things

Tuesday 11th

Begins with light breezes from the S E plenty vegetables on board Middle calm Latter light breezes from the E plenty of natives on board

Remarks on Board Ship Montreal

Wednesday June 12th 1839

Begins with moderate breezes from the SE Middle calm at 5 AM got underweigh with light breezes of the land employed in stowing anchors & chocins

Lat 23=36 S

Thursday 13th

Begins with strong breezes from the SE by E heading to the W at 12 PM tacked in shore at 1 PM tacked off Middle & Latter steering W by N

Lat 23=48 S Long by Obs 41=18 E

Friday 14th

Begins with moderate breezes SE & steering W by N under all sail Middle the same Latter steering NW employed in bending the main sail & fitting out

Lat 23=43 S Long by Obs 38=37 E

Saturday 15th

Begins with strong breezes from the S steering NW Middle the same Latter wind from the SE steering W employed in laying up rigging

Lat 21=52 S Long by Obs 37=14 E

Sunday 16th

Begins with light winds & pleasant weather steering W by N wind from the SE Latter calm all sail Middle employed Latter calm

Lat 21=59 S Long by Obs 36=34 E

Remarks on Board Ship Minerva

Monday June 17th 1839

SAW THE LAND

Begins with light breezes from the SSW
heading to the SE by the wind at 4 PM tacked to the
SSW at 10 tacked to the SE at 20 M tacked to SSW
at 8 A M Cape St Sebastian N point off our
Lar bow steering SW by wind from the SSE
at off SSE land 9 miles Dist

Lat 22 05

Tuesday 18th

Begins with strong breezes from the SSE
steering SSE along the E coast of Africa at 5 PM
off the N End of Bazaruto Ist heading in under
Double reef topsail blowing heavy from the
SSW at 7 P M wore off shore ship lying to
and Enclost reef Main topsail & storysails Blo
blowing heavy at 4 A M wore in shore heade
SW the Pilot of our weather beam at Day light
15 miles Dist set Double reef-topsails set fore &
sounded & sounded 10 fathoms water Land 15 miles Dist

Lat 21-44 S

Wednesday 19th

COME TO ANCHOR

Begins with strong gales from SSW at 3 PM
in fore topsail heading to the SE Middle
squally with rain at 2 A M wore ship Lath
more moderate wind from the S heading to the
SSW by the wind at 11 A M came to anchor
in 9 fathoms water near the coast of Africa
Land 8 miles Dist

Lat 21-12 S

Remarks on Board Ship Monthor

Thursday 11th July 1839

Begins with fine weather wind from the
S & E middle the same Latter strong breezes and
2 whales at Daylight at 11 A.M the Electra
boats & ours struck & secured the whale

Friday 12th — Begins with strong breezes from the S E Middle
moderate Latter towing the whale to the Electra

Saturday 13th — Begins with moderate breezes & fine weather
at 2 P M got the whale along side of the
Electra Middle & Latter wind from S & E pleasant
boats whaleing

Sunday 14th — Begins with fine & pleasant weather
wind from the S & E middle the same Latter
wind from the S E

Monday 15th — Begins with moderate breezes from the
S pleasant Middle squalls of rain Latter
boats whaleing

Tuesday 16th — Begins with moderate breezes from the
S E Middle raing Latter strong breezes from S E

Wednesday 17th — Begins with strong breezes from the S E
Middle the same Latter wind from the S E boats
whaleing

Remarks on Board Ship Minerva

Thursday July 18th 1839

COMMENCED ANOTHER

Begins with strong breezes from the N.W. the Ship India of N Bedford Capt Lee 11 months out 1900 W came in to the Bay but Did not stop employed in heaving up the anchors to clean the chains & to come made sail & come to anchor near the Isle in the midst of the Bay in 7 fathoms water

Friday 19th

Begins with strong breezes from the S West squalls of rain boats watering painting ship

Saturday 20th

Begins calm boats watering Middle watch Latter the same painting ship light breezes from E

Sunday 21st

Begins with light breezes from the S & E fair watering with the Pinders & Lecturer & Pembroke Middle the same Latter got the anchor with 25 fathoms of chain from the bottom that the India of N Bedford parted from

Monday 22nd

Begins with light breezes from the E middle the same Latter employed in breaking out oil from the main hatchway to cooper

Remarks on Board Ship Martha

Tuesday July 23rd 1839

Begins with fine & pleasant weather
wind from the E employed in stowing oil
in the main hatchway found it in good order
Latter employed in stowing the after hatchway
the Pembroke left for sea

Wednes 24th — Begins with pleasant weather wind from the N sent aloft main top gallant mast & yard Latter boats noticing commenced mating with the Pinders & Electra

Thursday 25th — Begins with light breezes from the S & W. Middle & Latter the same boats noticing

Friday 26th — Begins with calm & pleasant weather Middle moderate gale from the S Latter employed in repairing sails

Saturday 27th — Begins with moderate gales from the S Middle the same Latter the Electra of S London left for sea

Sunday 28th — Begins with strong breezes from the S Middle the same Latter squalls of rain

Remarks on Board Ship Brontes

Monday July 29th 1839

Begins with moderate gales from the S
Middle squalls of rain Latter got some spun
oil from the Pindus that was taken while
moored with her & stowed it down

Tuesd 30th — Begins with moderate breezes from the S employed in breaking out after water & bread Latter setting up rigging & getting off wood

Wednesd 31st — Begins with light breezes employed in setting up rigging Latter boats reloading

Thursd 1 August — Begins with light breezes from the S & E Latter the same carried on anchor on board the Bonyu Pindus at 9 A M got underweigh in Co with the Banque Pindus from Bazaruta Bay

Friday 2nd — Begins with light breezes from the N & E Beating out of the bay at 4 P M came to anchor with a hard tide in 9 fathoms water at 8 A M got underweigh in Co with the Pindus mind from the N & E

ANCHOR

Saturd 3d — Begins with fine & pleasant weather mind from the N & E beating out of Bazaruta Bay at 6 P M shortened sail Middle pointed Co with the Pindus Latter Land in sight E coast of Africa Lat 22 = 36 S

Remarks on Board Ship Martha

Wednesday August 14th 1839

COME TO ANCHOR

Begins with light breses from the S & steering W at 6 P M come to anchor in Delyga Bay Middle calm at 6 a m weighed anchor & anchored farther to the S in 6 fathoms water the Capt left the ship for English River boats from the shore with Onions Potatoes fowls

Thursd 15th

Begins with light breses from the S & E & pleasant pass'd Brig's standing out of the Bay Middle wind from the S Latter from the S & E

Friday 16th

Begins with light breses from the S & E & pleasant Latter went on shore bought several hogs with a piece of chain cable of the natives

Saturd 17th

Begins with light breses from the S & E Middle the same Latter calm

Sunday 18th

Begins with calm middle the same at 7 a m weighed anchor for our light breses from S & E

Monday 19th

Begins with light breses from the E at 8 am set shortened sail Latter moderate breses from the E heading to the S & E employed in ships Duty

Lat 26 07 S Long by Ch 33-45 E

Remarks on Board Ship Massachusetts

Tuesday August 20th 1839

Begins with moderate breezes from the E heading to the S & E by the mind middle moderate gale from the E ship under close reef main top sail Latter moderate ship under double reef topsails

Lat 26-03 S Long by Chro 33=30

Wednesday 21st

SAW THE LAND

Begins with moderate breezes from the E heading to the S & E by the mind at noon set short sail Latter mind fresh S & W heading to the S & W under all sail at 9 A M saw the E Coast of Africa

Lat 25-43 S Long by Chro 33-15 E

Thursday 22nd

Begins with light breezes from the S heading to the S & E Middle & Latter the same employed in ships Duty

Lat 25-42 S Long by Chr- 33=43 E

Friday 23rd

Begins with moderate breezes from the S & E heading to the S & E by the mind at 6 P M more ship to the S Th Middle brisk breezes Latter moderate from the S & E heading to the S & W at 11 A M saw a sail off our lee quarter

Lat 26-06 S Long by Chro 33=23 E

Saturd 24th

SPOKE THE QUITO

Begins with with light breezes from the E steering S at 6 P M spoke the Brig Quito of & Bedford Capt Webb Middle ship under sail Latter brisk breezes ship under Double reef topsails saw fin backs

Lat 27-16 S

Remarks on Board Ship Martha

Sunday August 25th 1839

SAW THE LAND

Begins with brisk breezes from the S & E steering W at 5 P M saw the land 3 points off our l bow E coast of Africa at sun set shortened sail steering S by W Latter brisk breezes from the N E steering S W under all sail saw fin backs

Lat 28-13 S Long by Chr 33=11 E

Monday 26th

Begins with brisk breezes from the N E steering S W at sun set shortened sail Middle moderate gale Latter the same ship under double reef topsails

Lat 30=43 S Long by Chr 32-08 E

Tuesday 27th

Begins with moderate breezes N E steering W S W 5 P M heavy squalls from the S W in all sail but close reef main topsail Middle heavy gale latter more moderate wore ship to the W made sail wind from the S S W

Lat 31-35 S Long by Chr 29=39 E

Wednesd 28th

Begins with moderate breezes from the S W heading to the W under all sail Middle wind from N E steering W S W under all sail Latter brisk breezes

Lat 32-05 S

Thursday 29th

SAW A BARQUE

Begins with brisk breezes from the E N E steering W S W under all sail middle the same at daylight course W N W ship under double reef topsails at 11 A M saw a Barque to leeward steering W S W

Lat 34-25

Remarks on Board Ship Mouth.

Friday August 30th 1839

Begins brisk breezes from the E & E steering W & W at 2 PM saw the Land Coast of Africa off Abyoa Bay at 5 PM hoisted to the wind off shore & Double reefed the top sails at 12 tacked in moderate at 11 a m come to anchor in Port Elizabeth in 7 fathoms water

CONE TO ANCHOR

Saturday 31

Begins with light breezes from the E & E employed in getting cask for water Windy foggy Latter the same sent a mess of cask on shore

Sunday 1st

Begins with light airs from the E & E Latter light winds from the N & W the most shore on liberty

Monday 2nd

Begins with fine & pleasant weather wind from the N W at 8 P M the watch returned on board Middle moderate Latter strong breezes from the S & W with rain got a few cask of water from the shore at 11 a m let go the 2 anchor

Tuesday 3rd

Begins with brisk breezes from the S & W with heavy squalls of rain at 6 got a few more cask of water from the shore the watch on liberty

Remarks on Board Ship Bee

Wednesday September 4th 1839

Begins with a fine Middle strong
from the N.E latter the same the boat stow
above often the Liberty people

Thursd 5th — Begins with strong breses from the N.E
Middle moderate Latter got over buoy & other
recruits from the shore

Friday 6th — Begins with strong breses from the N.E
Middle moderate Henry Trench &
Allen Grigors deserted from the ship at 9
A M got the ship underweigh at 11 come to
anchor wooting for the men

Saturday 7th — Begins with strong breses from the N
M.D & L.L Latter the same at 6 A M have
short strong breses from the N.E

Sunday 8th — Begins with strong breses from the N.E
at 2 P M weighed anchor at Port Elizabeth
steering out of the Bay Capt put the
mate of duty Middle lying off & on with
the Bay Latter blowing heavy in fore & main
topsails heading to the S at 11 more sail

Lat 34=33 S

Remarks on Board Ship Martha

Monday September 9th 1839

SAW THE LAND

Begins with strong breeses from the E
heading to the N & E under short sail mate
on duty at 2 P M set fore & Mizen top sails
Middle moderate from the N th heading to
the N & E at 10 a m the Land in sight off Algoa
Bay ship under double reef topsails steering
in for port Elizabeth

Tuesd 10th

Begins with strong breeses from the N W
ship under double reef top sail at 1 P M came
to anchor in Port Elizabeth in 7 fathoms
water boat come from the shore with the 2 men
that left on Friday at 2 P M weighed anchor
for sea Middle light winds Latter the same
with thick fogg employed in getting in the
anchors & fitting the boats

No Obs

Wednes 11th

Begins with light breeses from the S & E head
ing S th by the wind under double reef top
sails thick fogg saw black fish Middle & Latter
wind from the N at 10 a m the wind shifted
& blew a gale in all sail except close reefd
main topsail thick & raining

No Obs

Thursd 12

SAW A SHIP & LAND

Begins with strong breeses from the S W thick
with rain ship laying to under close reef main
topsail Middle the same Latter more moderate
made sail saw a sail ahead 9 a m saw the
Land coast of Africa [illegible]

Lat 34 22 S Long by Ch 26-48 E

Remarks on Board Ship Manilla

Sunday September 13th 1835

SAWA SHIP

Begins with calm & pleasant weather
Middle moderate breese from the S & eastern
to the S by the wind latter part wind N.E. ship under
Double reef topsails heading to the S & E by the
wind employed in breaking for water some sea

Lat 35-44 S

Saturday 14th

Begins with strong breeses from the N.E &
with rain heading to the S & E Middle mod. and
from the N. steering E & S Latter wind from the
N.E steering ship under all sail steering S & E
on bent the mainsail

Lat 35-49 S

Sunday 15th

Begins with moderate breese & pleasant weather
wind from the N.E Middle calm Latter part breese
from the N.N.E steering S.E by E fine & pleasant

Lat 35-58 S Long by Ch 27-30 E

Monday 16th

Begins with brisk breeses from the N.N.E at 1 P.M.
double reefed the topsails Middle strong breeses
from the N. Latter from the N.N.E moderate made
sail saw fin boats

Lat 36-59 S Long by Chro 29-33 E

Tuesd 17th

Begins with moderate breeses wind from the N.E
steering S.E Cloudy weather Middle thick with
rain ship under Double reef topsails Latter wind
from the S.W ship under all sail steering S.E

Lat 36-42 S Long by Ch 32-42 E

Remarks on Board Ship Nan.
Wednesday September 18th 1839

Begins with brisk breezes from the N.
steering S.E. under all sail middle
squalls of rain Latter part from the
S.E. ship under Double reef topsails head
to the E by the wind

Lat 37-46 S

Thurs 19th

Begins with strong breezes from the S.E. hea
to the E under Double reef topsails Middle
thick & raining at 2 a M wore ship to the N.E.
wind from the S.E. moderate gale ship
under Double reef mens'l topsail & foresail

Lat 36.15 S Long by 34-48 E

Friday 20th

SAW A SHIP

Begins with a moderate gale from the N.E.
same a sail to leeward
Middle the wind from the N. Latter the
same ship under whole topsails fine weat
employed in ships duty saw a fin back

Lat 35.-52 S

Saturday 21st

SAW A SHIP & BLACK WHALE

Begins with fine & pleasant weather wind
from the N. ship under all sail steering S.E.
at 5 P M saw a ship to windward bound to
the S & E middle pleasant Latter squalls of
rain at 11 a M saw a whale going fast to
windward lowered but did not strike

Lat 36-44 S

Remarks on board Ship Martha
Tuesday September 1st 1839

Begins with moderate breeses from the N E steering S S E under double reef topsails raining Middle & Latter light airs from the N E & rain got all the spars in from over the stern

No Obs

Wednes 2nd
Begins with light breses from the N E steering S S E under double reef top sails raining Middle & Latter light airs from the N steering S E thick weather employed in ships duty

Lat 39-25 S

Thursde 3rd
Begins with with moderate breeses from the N steering E S E at sun set luphed to the wind heading to the N & E Middle thick & raining at 3 A M thunder & lightning with rain clost reefed main top sail & furled the fore sail at 7 A M course S wind from the N with rain & blowing heavy

No Obs

Frida 4th
Begins with moderate gale from the N steering S under clost reef main top sail & fore sail & fore sail at sun set furled the fore sail & luphed to the wind heading to the N & E Middle the wind from the S W at daylight made all sail steering N E fine & pleasant with moderate breeze

Lat 40-33 S Long by Chr 51=56 E

Saturday 5th
Begins with fine & pleasant weather wind from the S W at sun set shortened sail at day light made all sail steering N N E wind from the W

Lat 39 13 S

Remarks on Board Ship Martha

Sunday October 6th 1839

Begins with moderate breezes from the W with light squalls of rain steering S by E at sun set shortened sail Middle moderate Latter brisk breezes & squally ship under double reef top sails saw fin backs

Lat 37-01 S Long by Ch 52-18 E

Monday 7th A

Begins with strong breezes & squally from the W steering S by E under double reef top sails at sun set shortened sail hoisted to the wind heading to the S & W by the wind at day light made all sail steering S by E saw fin backs

Lat 35-31 S Long by Chr 53-20 E

Tuesday 8th

Begins with strong breezes from the S & W steering S & E under all sail at sun set shortened sail & more ship steering S E Middle the same Latter moderate with thick weather wind from the S & W with light squalls of rain employed in attending to shooks & repairing fore staysail saw fin backs

Lat 35-31 S

Wednesday 9th

Begins with fine & pleasant weather, wind from the W & W steering S & E under all sail at sun set shortened sail Middle & latter thick weather saw fin backs wind from the S & E steering S & E employed in setting up shooks

Lat 35-58 S Long by Chr 55-20 E

Remarks on Board the Ship Phoenix

Thursday October 10th 1839

Begins with strong breezes from the N E steering S E under all sail at sun set shortened sail
lufted to the wind to N & E at Day light made
said steering S E wind from the N employed
in knocking out often water & heard thick fogg

Lat 36=29 S

Friday 11th Begins with thick & foggy weather wind
from the N steering S & E at sun set shortened
sail lufted to the wind heading to the N & E
Middle thick weather latter under Double reefs
reef top sail at 10 a m wore ship to the S West

Lo-06

Saturday 12th Begins with brisk from the N & W with main
steering S and in double reef top sails at sun
set shortend sail lufted to the wind heading to the
N & E Middle & latter storming heavy from the
W ship under lost reef main top sail & stay sails

Lat 36-25 S

Sunday 13th Begins with a gale from the W ship laying
to under lost-reefed main top sail & stay sails
Middle the same moderate with squalls of
hail Latter steering N N E under all sail wind
from the S W & S squally

Lat 35=54 S Long by Obs 59-25 E

Monday 14th Begins with moderate breezes from the S W steering
N E at sun shortend sail & lufted to the wind heading
to the N & W Middle the same Latter steering N E under
all sail light squalls & rain saw fin backs

Lat 34=46 S Long 59-21 E

Remarks on Board Ship Maritta

Tuesday October 15th 1839

Begins with light breezes from the S to SSE steering N E by E saw fin back

Middle moderate latter steering N E by E

under all sail

Lat 33=40 S Long by Chn 60-13 E

Wednesday 16th

Begins with light breezes from the S to SSE

SSE cloudy steering E N E under all sail saw

fin backs employed in making spun

yarn Middle & Latter pleasant steering

E ne ind from the S

Lat 33=11 S

Thursday 17th

Begins with light breezes from the E head

to the N & E by the wind employed in bundg

over the whale bone saw fin backs at sun

set shortened sail at 12 noon shifd to the N & E

Latter moderate breezes from the E N E heading

to the N & E by the wind employed in bundg saw

Lat 33-14 S Long by Chn 60-51 E

Friday 18th

Begins with moderate breezes from the

N steering E N E under all sail at sun

set Double reefd the Topsails at Day light

made all sail employed in ships Duty

Lat 33=46 S Long by Chn 62=41 E

Remarks on Board Ship Montreal

Monday November 4th 1839.

Begins with moderate breezes from the N.E saw the Pocahontas take a whale along side at 12 M lowered & struck at 6 P M got the whale along

SAW WHALES side Midd blowing moderate gale with main Latin blowing a gale employed in cutting at 11 finished mom ship heading to the E & E under double reef main top sail blowing heavy

Lat 0 0 0

Tuesday 5th Begins with thick & raining weather at 1 P M lowered for whales struck at 3 P M got the

SAW WHALES whale Midd lying by the whale at 6 A M commenced cutting at 11 finished

Lat 0 0 0

Wednesd 6th Begins with fine weather from the N.W at 1 P M struck a whale & killed them sunk at 4 got the whale along side at 9 finished cutting

SAW A SHIP & WHALES & commenced boiling saw a ship bearing to windward at 7 A M saw a ship ahead at 8 A M more ship to the S & E wind from the E ship under double reef topsails saw whales

Lat 34-29 L

Thursd 7th Begins with with strong breezes from the S.E.E to the E under short sail employed in boiling Midd the same at 7 A M saw whales lowered & struck at 9 got the whale along side commenced cutting strong breez from the SE

Lat 34-40 L

Remarks on Board Ship Nimrod

Sunday 8th November 1839

Begins with strong breezes from the E employed in cutting at 1 P M finished & commenced stowing down at 8 P M commenced boiling Middle heading to the S & E at 9 A M saw whales lowered but did not strike whales in sight

S & W

WHALES

So Obs

Saturday 9th

Begins with strong breezes from the E & E under double reef top sails at 8 P M more ship to the S & E whales in sight employed in boiling Middle heading to the S & W Latter part saw about in chase of whales a great number in sight lowered but did not strike

SAW

WHALES

Lat 24-23 S

Sunday 10th

Begins with moderate breeze from the S & E employed in boiling in chase of whales at 1 P M lowered at 4 P M lowered again but did not strike Middle moony heading to the S & E at 12 at 6 A M saw whales lowered running hard got up the chase at 10 A M finished boiling blowing heavy from the S & E trying to under lost reef main topsail

SAW

WHALE

So Obs

Monday 11th

Begins with moderate gale from the E & E heading to the S middle the same with rain at 7 A M more ship to the S & E employed in stowing down Lat 24-29

Remarks on Board Ship Monthio

Tuesday November 12th 1839

SAW A. SHIP & WHALES

Begins with a gale from the NE ship lying under close reef main top sail at 5 PM finished storing down Middle more moderate main at 7 AM made all sail saw a ship to windward at 12 saw a whale to windward

Lat 34-19 Long by Chro 62-50 E

Wednesday 13th

SPOKE THE JOHN & PINDUS & SAW WHALES

Begins with pleasant weather wind from the NE at 1 PM spoke the Ship John 2300 at 2 PM lowered for whales but did not strike Middle wind from the N heading heading to the N & E at 7 AM spoke the Barque Pindus Pope Penny 1000 bbls at 8 lowered for whales struck & got him along side & commenced cutting at 12 finished saw the John took a whale plenty of whale in sight

Lat 34-10 Long by Chro 62-30 E

Thursday 14th

SAW 3 SHIPS & WHALES

Begins with fine & pleasant fine & clear weather wind from the N saw shoal of whales at 1 PM lowered & struck & sunk the whale at 4 PM lowered & sunk another & planted the line at 6 PM picked up a Dead whale 3 ships in sight Middle laying by the whale Latter employed in cutting

Lat 34

Remarks on Board Ship Martha

Friday November 15th 1839

SAW
A
BARQUE

Begins with strong breezes from the N E
ship under short sail heavy squalls of rain
Middle blowing a gale from the S quit boiling
at daylight more moderate commenced
boiling under clost reef main topsail heading
to the S & W saw a Barque to leward

Lat 34=23 S

Saturday
16th

SAW A
SHIP
&
WHALES

Begins with strong breezes from the N & E
ship under clost reef main top sail employed
in boiling Middle moderate Latter calm
at 6 a m saw whales lowered & struck irons
drawed ship in sight boiling employed
in stowing down & boiling

Lat 33=59 S

Sunday
17th

SAW A SHIP
&
WHALES

Begins with calm employed in boiling at
2 P M saw whales lowered & struck at 5 P M
got the whale alongside wind from the Middle
boiling at 6 a m comenced cutting plenty of
whales in sight at 11 struck irons drawed ship
in sight to leward No Obs

Mond
18th

SAW SHIP
&
WHALES

Begins with fine & pleasant weather from the S E
at 3 P M lowered & struck at 5 P M got the whale
Middle laying by the whale at 7 a m commenced
cutting at 10 finished commenced boiling ship in sight
& plenty of whales fine weather

Lat 34-09

Remarks on Board Ship Martha

Wednesday November 27 1839

Begins with fine & pleasant weather wind fm the E heading to the S & E under all sail Mi le moderate at 7 AM saw whales lowered & struck Latter employed in cutting

Lat 33=55 S

Thursd 28th

SPOKE THE WASHINGTON

SAW WHALES

Begins with brisk breeses from the E employed cutting at 1 P finished spoke the portland at 3 P M lowered for whales & struck a great number in at sun set got the whale along side Middle boiling laying by the whale at 7 A M commenced cutting at 8 quit blowing a gale from the N E spoke the Washington commenced cutting ship lying under staysails at 8 quit on account of the weather

No Obs

Friday 29th

Begins with a gale from the N lying to by the whale & boiling at 1 P M quit boiling Middle raining Latter more moderate thick weather employed in boiling

No Obs

Saturday 30th

Begins with moderate weather at 1 P M commenced cutting at 4 finished & commenced boiling wind from the S W Middle moderate Latter the same heading to the N & W under double reef topsails

Lat 34-00 S Long by Obs 65-14 E

Remarks on Board Ship Manitta

Sunday December 1st 1839

Begins with moderate breezes from the S W steering S & E employed in boiling Latter heading to the S & E under short sail boiling same pin backs

Lat 33-43 S

Monday 2nd — Begins with fine & pleasant weather wind from the S W at 1 P M finished boiling & commenced stowing down heading to the W by the wind Latter stowing down moor ship to the Q

Lat 33-55 S

Tuesday 3rd — Begins with fine & pleasant weather wind from the S W steering to the S & E Middle & Latter the same at 9 A M saw a whale lowered the boats but Did not strike whale going quick

Lat 33-22 S Long by Chron 65-43 E

SAW WHALES

Wednesday 4th — Begins with fine & pleasant weather from the S W steering S E at 4 P M saw a great number of whales at 5 lowered & struck at 5 got him along side Middle lying the whale Latter cutting

Lat 32-20

SAW WHALES

Thursday 5th — Begins with light breezes from the S heading to the S & E employed in boiling at 8 P M spoke the Barque Pembroke of & London 1500 Middle & Latter pleasant heading to the S & E

SPOKE BARK PEMBRKE

Lat 33-32 S

Remarks on Board Ship Martha

Friday December 6th 1839

Begins with calm sent aloft fore top G Ma
Ly and S out flying Jib boom at 4 P M finished
boiling Latter wind from the S E steering N W
under all said fine & pleasant

Lat 33-18 S Long by Ch 65-18 E

Saturday 7th — Begins with fine & pleasant weather wind
from the S E steering N W Midle the same
Latter employed in stowing Down oil

Lat 30-16 S

Sunday 8th — Begins with fine & pleasant weather employed
in cleaning ship Midle light breezes from
the S E steering N W. Latter the same employed
employed in [illegible] sending up light
sails fine & pleasant

Lat 32-10 S Long by Chr 64-44 E

Monday 9th — Begins with fine weather & light winds from
the S & W heading to the N & E by the wind Midd
le & Latter calm employed in laying up rigging

Lat 31-55 S Long by Chr 64-10 E

Tuesday 10th — Begins with calm Midle the same Latter light
breezes from the S E steering N under all sail
employed in repairing Boat

Lat 31-10 S Long by Chr 63-30 E

Remarks on Board Ship Morris

Wednesday December 11th 1839

Begins with light breezes from the S & steering S under all sail Middle agreeable of rain Latter pleasant employed in bending bow Lat 30-25 S Long by Chs 82-48 E

Thursd 12th Begins with moderate breezes from the S & steering S by W under all sail Middle light squalls of rain Latter light winds employed on laying up rigging

Lat 29-05 S Long by Chro 82-04

Friday 13th Begins with light breezes from the S & E steering S.W. & W Middle calm Latter light breezes employed in sounding bow

Lat 28-19 S Long by Chro

Saturday 14th Begins with light breezes from the S & E steering S.W. & W employed in stowing bow Middle shifted the studdensails Latter calm employed in cleaning ship

Lat 28-08 S Long by Ch 60-50 E

Sunday 15th Begins with calm Middle light breezes from the S & E steering S.W. under all sail at 10 a m saw several large whales 4 miles from the ship at 12 lowered 2 boats

SAW SPERM WHALES

Lat 28-00 S

Remarks on Board Ship Worcester

Monday December 16th 1839

Begins with light breezes from the N.E. boats in chase of whales at 6 P.M. struck at 10 got the whale along side Middle laying by the whale at 5 A.M. commenced cutting fine & pleasant

Tuesday 17th

Begins with fine & pleasant weather boats the case of the whale at 3 P.M. manned sail steering N.N.W. at 6 P.M. commenced boiling Latter- moderate breezes from the S.E. & pleasant-

27-06 S Long by Chron 58-54 E

Wednesday 18th

Begins with strong breezes from the E steering N.N.W. Middle & Latter the same at 9 A.M. fine weather set studdensails

Lat 25-27 S

Thursday 19th

Begins with strong breezes from the E under all sail steering N.W. thick weather Middle light squalls of rain Latter the same

No Obs

Friday 20th

Begins with strong breezes from the S.E. steering W.N.W. Middle heavy squalls of rain in top mast studdensail split fore & main top gallant Latter navy employed in mending top gallant sails

No Obs

Remarks on Board Ship Martha
Saturday December 21st 1839

Begins with a moderate gale from the SE ship under double reef top sails steering NNW with rain at 6 P M luffed to the wind heading to the S under short sail Latter steering WNW employed in stowing oil

Lat 24-35 S Long by Chro 49-57 E

Sunday 22nd Begins with moderate breezes from the SE steering WNW at sun set shortened sail Middle moderate Latter calm

Lat 24-41 S Long by Chr 49=25 E

Mond 23 Begins with light airs from the E at sun set shortened sail steering NW Latter the same ship under all sail employed in ships duty

Lat 24-06 S Long by Chr 49 00 E

Tuesday 24th Begins with fine & pleasant weather wind from the E steering NW under all sail at 6 P M saw sperm whales lowered the boats whales going quick did not strike middle under short sail by the wind Latter under all sail steering W at 9 A M seen whales

SAW SPERM WHALES

No Obs

Remarks on Board Ship Warrior

December 25th 1829

Begins with fine & pleasant weather boats in chase of whale at ½ past 12 come on board steering W^b at 4 P M saw more whales 4 points off our weather bow 3 miles off at sun set shortened sail Middle fine & pleasant Latter the same mind from the E^d & E steering W^b & W under all sail

Lat 23-46 S Long by Ac 47-24 E

Thursday 26th

JAW SPERM WHALES

Begins with fine & pleasant weather winds from the E^d & E steering W^b & W at 1 P M saw whales breaching off our L Bow kept the ship to the wind Middle & fore & aft sail Latter thick with rain & kept under single reef topsails steering W^b & W

Lat 23-51 S

Friday 27th

SAW MADAGASCAR

Begins with strong breases from the E^d & E steering W^b & W thick & rainy weather at 2 P M saw the Isle of Madagascar ahead 3 miles D ist kept the ship to the wind & double reefed the topsails at sun set wore ship heading to the S Middle & fore & aft sail at 6 a m steering W^b under all squalls of rain at 6 a m steering W^b under all sail at 12 Fort Dauphin bore N steering W & W strong breases

Lat 25-17 S

Remarks on Board Ship Mirth

Saturday December 28th 1839

Begins with strong breeses from the E S E steering W S W by the S end of Madagascar at sun set passed a fore top sail schooner under short sail heading to the S & E Middle fine & pleasant latter the same steering W by S

Lat 26-35 S Long by Chr 43-13 E

Sunday 29th Begins with fine & pleasant weather from the E steering W S W under all sail Middle & Latter the same

Lat 27-41 S Long by Chr 40=20 E

Monday 30th Begins with fine & pleasant weather wind from the E ship under all sail steering W S W Middle the same at 10 a m the wind shifted sudden in studdensails ship lying to under double reef main topsail & fore sail thick & rainy heading to the W

No Obs

Tuesday 31st Begins with strong breses from the S & W ship lying to under close reef main top sail Middle the same heading to the W Latter more moderate set double reef topsail heading W b W by the wind

Lat 29=12 S Long by Ch 38 36

Remarks on Board Ship Warrior

January 1st 1840

Begins with strong breezes from the S & E ship under double reef Topsails heading the by S & by the wind Middle the same Latter more moderate set close reefd Topsails employed in ships Duty

Lat 29-06 S Long by Obs. 37-44 E

Thursd 2nd — Begins with moderate breezes from the S steering W by S under all said Middle & Latter calm employed in laying up rigging

Lat 29-18 S Long by Obs. 36-10 E

Friday 3rd — Begins with calm Middle & Latter the same employ'd in ships Duty

Lat 28-51 S Long by Obs 35-53 E

Saturday 4th — Begins with calm Middle light breezes from the N & E steering W S W Latter brisk breezes ship under all sail fine & pleasant

No Obs

Sunday 5th — Begins with strong breezes from the N E steering W S W under all sail Middle & Latter the same fine & pleasant weather

Lat 29-46 S Long by Obs 33-22 E

Monday 6th — Begins with moderate breezes from the N E steering W S W under all sail at 6 P M calm Middle strong breezes from the S W heading to the S & W by the wind some rain with lightning Latter strong breezes employed in ships Duty

Lat 32-07 S Long by Obs 21-04 E

Remarks on Board Ship Martha

Tuesday January 7th 1840

Begins with light breezes from the S & W heading W & W by the wind under all sail Middle & latter the same

Lat 32-48 S Long by Chr 31-04 E

Wednesday 8th SAWA SHIP

Begins with light airs from the S steering W & W at 6 P M saw a sail off our Stern Middle & latter calm employed in ships duty

Lat 32-05 S Long by Chr 30-25 E

Thursday 9th

Begins with light airs from the E steering W by S under all said saw a ship bound to the W Middle & strong breezes & pleasant

Lat 33-25 S Long by Chr 28-29 E

Friday 10th

Begins with moderate breezes from the E steering W by S at 12 M calm at 7 the wind W double reefed the topsail Middle thick with thunder & lightning in fore & mizen topsails at Daylight saw made all sail heading W by the wind from the S & W employed in ships duty

Lat 33-25 S Long by Chr 27-32 E

Saturday 11th

Begins with light breezes from the E steering W by S under all said Middle & latter the same fine & pleasant employed in ships Duty

Lat 34-28 S Long by Chr 26-14 E

Sunday 12th

Begins with light breezes from the E steering W by S under all said fine & pleasant latter the same the wind E on soundings

Lat 34-52 S Long by Chr 22-44 E

Remarks on Board Ship Martha

Monday January 12th 1820

SAW A BRIG

Begins moderate breezes from the Eastward by S under all sail fine & pleasant at 12 M calm at 1 P M light airs from the S by E heading to the S & W by the wind at 5 P M tacked to the N & W at 6 P M saw a Brig to leeward heading to the N & W by the wind employed in sweeting out after mater

Lat 34-44 S Long by Chro 22-07 E

Tuesday 14th

SAW A SHIP

Begins with moderate breezes from the S by E heading to the S & W by the wind at 3 P M saw a ship to windward at 6 P M tacked to the Port 12 tacked again Latter calm employed in Ships duty

Lat 34-42 S Long by Chro 21-38 E

Wednesd 15th

Begins with light breezes from the S steering Ths by E under all sail at 6 P M saw the South end of Africa 4 points off our S bow in studdens S tupled to the wind heading Th & Th at Daylight made all said steering N by E Latter fine & pleasant wind at S employed in mattling down

Lat 34-59 S Long by Chro 19 38 E

Thursday 16th

SAW A SHIP

Begins with brisk breezes from the S steering Ths & Th at 6 P M the south extremity of Africa bore N by Th 9 miles Dist Middle steering Th & Th under all sail Latter steering to Th at 9 A M saw a Sail off our weather quarter steering N & W wind at S S W blowing moderate gale

Lat 34-24 S Long by Chro 16 34 E

Friday 17th

Begins with strong breezes from the S steering N & Th under all sail at 3 P M split the fore top gallant sail at 6 P M in lower studdensail blowing heavy Middle & Latter more moderate set all sail steering N & Th employed in fitting rigging

Lat 32-12 S

Remarks on Board Ship Warrior.

Saturday January 18th 1845

SAW 2 SHIPS

Begins with strong breezes from the S.S.W. steering S.S.W. under all sail fine & pleasant weather Middle the same 6 a.m. saw 2 ships steering S.W. employed in setting & rigging

Lat 30-14 S Long by Chr 10-57 E

Sunday 19th

Begins with strong breezes from the S.S.E. & S.S.W. under all sail fine & pleasant Middle & Latter the same

Lat 28-40 S Long by Chr 8-31 E

Monday 20th

Begins with strong trades steering S.S.W. & W.S.W. under sail Middle & Latter the same employed in fitting rigging & Carving down

Lat 27-12 S Long by Chr 8-01 E

Tuesday 21st

Begins with moderate trades steering S.S.W. & W.S.W. fine & pleasant weather Middle & Latter the same employed employed in fitting rigging

Lat 26-00 S Long by Chr

Wednesday 22nd

Begins with light trades & pleasant weather steering S.S.W. under all sail Middle & Latter the same employed in carving down

Lat 26-01 S Long by Chr 8-36 E

Thursday 23rd

Begins with light breezes & variable from the S.S.W. Middle the same steering S.S.W. under all sail at 9 a.m. breezes from the S.S.W. heading to the W by the wind at 10 saw a sail to windward

Lat 24-33 S

Remarks on Board Ship Maria

Friday January 24th

Begins with light breezes from the N & W heading to the W by the wind at 8 P M tacked ship Middle wind from the S Steering N & W Latter light winds & variable heading to the N & W by the wind

Lat 23-39 Long by Ch 2-54 E

Saturday 25th

Begins with light airs & variable Middle & Latter calm

Lat 23-42 - S Long by Obs 2-16 E

Sunday 26th

Begins with calm at 12 M light airs from the W steering N by W Middle & Latter moderate breezes from the S steering N by W under all said fine & pleasant

Lat 22-36 S Long by Ch 1-24 E

Monday 27th

Begins with moderate trades steering N & W under all sail fine & pleasant Middle & Latter the same got out the anchors

Lat 21-30 S

Tuesday 28th

Begins with moderate trades steering N & W under all sail Middle the same Latter employed in painting ship out side

Lat 19-56 S Long by Ch 2-57 W

Wednesday 29th

Begins with moderate trade fine & pleasant weather steering N & W Middle & Latter the same

SAW A SHIP

Lat 18-31 S Long by Ch 00-27 W

Thursday 30

Begins with moderate trades steering N & W at 6 P M spoke the Manor Theresa of & Bedford all full 18 months out Middle & Latter squally the Manor T in sight

SPOKE THE MARIA THERESA

Lat 16-38 S Long by Obs 4-40 W

Remarks on Board Ship Martha

Thursday February 20th 1840

Begins with light & variable winds with squalls of rain split the fore & main to gallants Latter plenty of rain split the main top sail bent another employed in repairing the main top gallant sail variable winds

At 0 Obs

Friday 21st — Begins with light & variable winds with rain Middle clear & calm Latter light & variable with rain employed in repairing light sails

At 4-00 P.M.

Saturday 22nd — Begins with rain Middle clear & calm with rain ~~Latter~~ light breezes & variable mending sails

Lat 4-38 N

Sunday 23th — Begins with light breezes from the N.E. & E. heading to the N. & W. by the wind Middle the same Latter wind N.E. & E. steering N. W. set studden sails fine & pleasant

Lat 5-56 N Long by Obs 29-24 W

Monday 24th — Begins with moderate trades ship under all sail steering N. W. by W. Latter the same employed in repairing main top sail

Lat 7-09 N Long by Ob 32-45 W

Tuesday 25th — Begins moderate trades steering N. W. by W. under all sail Middle & Latter the same saw a ship to windward

SAWA SHIP

Lat 8-48 N Long by Obs 34-53 W

Remarks on Board Ship Anna

Wednesday February 26th 1840

AW SAIL	Begins with strong trades steering N½W by W under all sail middle & latter employed in repairing main sail
	Lat 10-25 N Long by Obs 37-00 W
Thursd 27th	Begins with strong trades & generally ship under all sail steering N by W Middle & latter the same
AWA SAIL	Lat 11-52 N
Friday 28th	Begins with brisk trades steering N W by W under all sail Middle & latter fine & clear
	Lat 13 08 N Long by Obs 42-31 W
Saturd 29th	Begins with light trades steering N W by W under all sail Middle & latter the same
	Lat 14-22 N
Sunday March 1st 1840	Begins with light trades steering N W by W employed in repairing Main sail Middle & latter light winds
	Lat 15-48 N Long by Obs 45-00 W
Mond 2nd	Begins with moderate trades steering N W by W Middle & Latter the same at 11 a m saw a schooner to windward
SAWA SAIL	Lat 17 17 N
Tuesday 3rd	Begins with moderate trades steering N W by W under all sail Middle & Latter the same
	Lat 18 19 N
Wednes 4th	Begins with brisk trades steering N W under all sail at 6 a m saw a Ship steering W fine weather
	Lat 19-43 N Long by Obs 50 37 W

Remarks on Board Ship Wountha
Thursday 5th March 1840

SAWASAIL

Begins with brisk trades sane a sail bound to the Wd Middle brisk trades Latter moderate steering NWd by W

Lat 21-9 N Long by Chn 51-37 Wd

Friday 6th

Begins with moderate trades ship under all sail steering NWd by W Middle mind from the SE Latter from the SSE moderate

Lat 22-47 N

Saturday 7th

Begins with moderate mind from the SE ship under all sail steering NWd Middle mind from the NNW squally with rain in studdensails & top Gallantsails Latter mind from the NNE Wd heading Wd by the mind employed in ships duty fine weather

Lat 24-02 N Long by Chn 54 00 Wd

Sunday 8th

Begins with light & variable winds Middle & Latter the same steering NWd

Lat 24-42 N Long by Chn 54-23 Wd

Monday 9th

Begins with light airs & calm Middle calm Middle calm Latter light breezes from the SE steering NWd employed in Ships Duty

Lat 25 09 N Long by Chn 55-11 Wd

Tuesday 10th

Begins with calm Middle light airs & calm sane a sail

Lat 25-49 N

Wednesday 11th

Begins with calm Middle light airs from the S Latter the same steering NWd

Lat 26-10 N Long by Chn 56-47 Wd

Remarks on Board Ship Bramtha
Thursday March 12th 1840

Begins with light breezes from the E steering N & W Middle the same Latter part employed in planing Decks

Lat 27-19 N Long by Chr 58 40 W

Friday 13th — Begins with light breezes with light breezes from the S & W ship under all sail steering W & W Middle the same Latter brisk breezes employed in planing Decks

Lat 28-25 N

Saturday 14th — Begins with brisk breezes from the S & W steering W & W under all sail Middle squally with lightning double reefed the top sails Latter blowing moderate gale from the N & W heading to the N & E by the wind have the long worths over board sent Miz top Gallant mast N & and down Lat

Lat 30-00 N Long by Chr. 58 36

Sunday 15th — Begins with moderate gale from the S W heading to the N & E by the wind at 4 P M tacked to the S W ship under double reef top sails Middle the same Latter more moderate

Lat 29-15 N Long by Chro 59 00 W

Monday 16th — Begins with moderate breezes from the N & E the ship under all sail heading to the S & W by the wind Middle calm at 6 A M light airs from the S & W heading to the N & W by the wind at 8 A M same heading to windward bound to the Ar Q

Lat 29 21 N Long by Chro 60 22 W

Remarks on Board Ship Martha

Tuesday March 17th 1840

Begins with strong breezes from the S.W. the ship under all sail steering to the N.E. by the wind middle & latter the same heading N.N.E. by N. by the wind

Lat 30=55 N Long by Chro 60=22

Wednesday 18th

Begins with strong breezes from the S.W. heading N.N.E. by E. by the wind at 12 M in flying jib & main top gallant sail Middle squally Double reefed the topsails latter blowing strong ship under double reef topsails heading N.N.E. by N.

Lat 32=26 N Long 61=02 W

Thursday 19

Begins with moderate gale from the S.W. heading to the N.E. by N. by the wind at 2 P M. off N.E. tacked to the S.W. Middle heading up N. latter calm & pleasant

Lat 32=06 N

Friday 20th

Begins with light airs from the W. heading to the N.E. by N. by the wind at 6 P M calm Middle light breezes from the N.E. steering N.W. under all sail squalls of rain. Latter steering W.N.W. at 10 saw a ship steering S.E.

Lat 33=06 N Long by Chro 63=36 W

Saturday 21st

Begins with light airs from the N. with squalls of rain thick weather at 2 P M saw a ship steering to the N. Middle wind from the N.E. thick & squally steering W. to N. under all sail at 6 P M ship lying to for a ship to wind ward at 7 P M boarded the ship Montello of Providence 69 days from Marseilles bound to Savannah with loss of sails & spars C. G. Lorton master supplied us with bread & potatoes

Lat 33=16 N Long by Chro 64=47 W

Remarks on Board Ship Maartra

Sunday March 22nd 1840

Begins with light breezes from the N.E steering N.N.W under all sail at 1 P M saw a Brig steering to the S. Middle calm Latter strong breezes from the N steering W. by N. under Double reef topsails got the waist boat in thick weather

Do. Ob

Monday 23rd — Begins with strong breezes from the N thick under Double reef top sails & courses heading W by N by the wind Middle more moderate saw a Ship steering S Latter calm employed in ships Duty

Lat 33-03 N

Tuesday 24th — Begins with calm at 2 P M saw a Barque ahead steering to the N.E at 6 P M light breezes from the S W made all sail steering W.N.W Middle brisk breezes at 6 a m thick & squally with rain in sight at 9 double reefed the topsails & pleated the main sail saw a Barque steering to the N.E sent down fore top gallant mast & yard in flying jib boom blowing a moderate gale from the S W steering N.W

Lat 34-10 N Long by Dno 69-00 W

Wednesday 25th — Begins a moderate gale from the S W N W under Double reef topsails & fore sail Middle the same thick & rainy with lightning Latter calm Divided the last morsel of bread in the ship amongst all hands which was 4 pound to a man thick weather & calm

No 06

Remarks on Board Ship Martha

Thursday March 26th 1840

Begins with calm at 2 P M saw a sail. at 6 P M light breezes from the S'ds steering N'ds thick weather with lightning Double reefed the topsails at 12 in fore top sail & fore sail Lost reefed the main top sail ship lying to heading to the E in a heavy gale from the N'd & E at 4 a m split the main top sail & blew the main staysail away & a part of the main top gallant sail at 8 more moderate wind from the N'd

No 06

Friday 27

Begins with a heavy gale from the N'd & lying to under bare poles heading to the E at 3 P M set reefed fore sail & fore top mast staysail more ship heading to the N'd & W'd at 12 P M more moderate Let Down Down the remains of the main top sail & bent another set & Double reefed saw 2 ships ahead Middle calm at 6 a m light breezes from the S'd & W'd made sail steering N'd & W'd by N fine weather employed in ships Duty

Lat 35-31 N Long by Chro 72-09 W

Saturday 28th

Begins with brisk breezes from the S & W steering N'd by W under all sail at 4 P M saw a ship at 12 crossed the North Edge of the gulph stream squall in studdensails Latter squalls of rain in studdensails wind at S steering N under all sail saw a brig

Lat 38 04

Sunday 29th

Begins with brisk breezes at S steering N by E at 12 sounded in 70 fathoms water thick weather Latter the same ship under All sail at 12 spoke the schooner Brilliant from Boston bound to Baltimore

Remarks on Board Ship Anarantha

Monday March 30th 1840

Begins with brisk breezes & thick weather steering
N by E at 1 P M spoke the schooner Lavinda of
Portland at sun set last reefd the topsails & lay[illegible]
to the wind heading to the S & E thick fogg with light
ning in 23 fathoms water latter thick & rainy wind
from the S S W heading to E in 18 fathoms water

Tuesday 31st

Begins with strong breezes & thick fogg wind from
the S W ship underdot reef top sails makeing short
tacks at 1/2 P M spoke the Eliza of Thomastown from
Baltimore bound to Boston in 14 fathoms water
from that to 20 Middle thick & rainy at 10 P M in
10 fathoms water makeing short tacks at 10 A M the wind
shifted to the W course E & E at 9 A M got a pilot
& ay Head in sight at 12 come to anchor at Man
thas Vin[illegible] and in 6 fathoms water

Wednes April 1st

Begins with strong breses from the S W at 6 A M got
the ship under weigh & went up to the wharf
employed in sending down spars light wind
from the S W

Thursday 2nd

Begins with strong breses from the S W employ
in discharging oil Middle equally from the S W
Latter strong breses from the S W employed in
discharging oil

Arithmetic

Arithmetic is the art of computing by Numbers and has (five) principal Rules for its operations Viz Numeration, Addition, Subtraction Multiplication and Division.

Numeration

Is the art of numbering. it teaches to express the value of any proposed number by the following Characters or figures. 1. 2. 3. 4. 5. 6. 7. 8. 9. 0.

Table

1	Units 1
21	Tens 10
321	Hundreds 100
4321	Thousands 1000
54321	tens of Thousands 10000
654321	Hundreds of Thousands 100000
7654321	Millions 1000000
87654321	Tens of Millions 10000000
987654321	Hund.ds of Millions 100000000

Examples

Write down in proper figures the following Numbers

Thirty six	36
Ninety seven	97
One hundred and twelve	112
Three thousand and five	3005
Six thousand two hundred & twenty	6220
Eighteen thousand nine hundred	18900
Twenty thousand five hundred & five	20505
Forty thousand and ninety seven	40097
Seventy three thousand and eighty	73080
Five hundred thousand one hundred	500100
Nine hundred thousand three hun-dred and seventy six	900376
One million one hundred thousand and nineteen	1100019
Fifty five Million one hundred thou-sand and ninety	55100090
One hundred millions & twenty	100000020
Eight hundred millions, forty four thousand and fifty five	800044055

Solid or Cubic Measure.

Lds:	Ft:	In:
6740	24	1149
7385	26	104
459	14	63
321	18	999
865	13	264
396	14	931
2541	13	865
1456	19	1
928	24	96
8010	3	85
29141	7	1629
22400	10	1180
29141	7	1629

Wks. Lds:	Ft.
6785	39
5932	32
64	33
78	21
4199	20
2343	18
156	14
242	8
8513	9
4462	20
33677	106
26892	67
33677	106

Time.

W.	d.	h
871	3	11
51	2	9
976	0	21
95	3	21
79	1	15
85	6	24
456	5	13
237	4	15
849	5	18
68	6	20
3770	6	23
2899	3	12
3770	6	23

years.	days.	hrs.	min.	sec.
187	149	12	13	12
146	126	16	16	16
59	186	19	39	19
28	140	21	46	35
7	119	22	18	26
126	146	19	57	19
846	254	14	46	53
973	263	18	42	54
584	121	14	31	32
432	214	18	24	59
8543	173	20	54	31
11965	69	9	31	56
11799	284	19	18	44
11965	69	9	31	56

Wine Beer Measure.

hhd.	gal.	qt.	pt.
48	17	3	1
19	16	2	1
15	31	3	1
46	43	2	1
23	26	3	1
52	38	2	1
266	33	2	0
188	15	2	1
266	33	2	0

A.	B.	pur.	gal.
25	2	7	
17	3	5	
96	2	6	
45	1	4	
96	3	7	
45	0	5	
387	2	7	
362	0	0	
387	2	7	

Dry Measure.

chal.	qter.	comb.	bu.	pks
38	1	4	5	3
47	1	3	6	2
62	0	2	4	3
45	1	4	3	3
78	1	1	2	2
29	1	3	6	2
302	2	8	11	3
264	1	4	6	0
302	2	8	11	3

qr.	bush.	pek.	qt
57	4	2	1
19	5	3	1
38	6	2	3
27	7	3	7
5	3	1	4
9	2	2	3
12	5	3	2
231	4	2	5
174	0	0	4
231	4	2	5

Coal Measure

bal.	Sack.	bush.	peck
11	6	2	1
16	5	1	3
12	3	1	2
15	7	2	1
16	8	1	3
18	6	2	2
15	5	1	1
9	7	2	3
5	8	2	2
123	7	0	2
112	0	1	1
123	7	0	2

Scour.	chal	Sack.	Bus.	Pks
17654	4	8	2	3
13286	3	6	1	2
6	5532	2	4	2 3
14356	3	5	1	1
6547	2	1	3	2 2
32124	3	9	1	3
754	56	2	8	2 1
31238	3	5	1	2
6865	3	1	4	2 3
385772	5	10	1	0
368118	1	1	1	1
385772	5	10	1	0

Square Measure

S.M.	Acres	Roods	Rods
638	69	2	30
412	72	1	24
364	36	2	16
831	42	1	6
648	17	3	11
317	16	1	18
234	67	2	33
651	84	3	22
438	61	2	32
4535	145	1	32
3897	75	3	2
4535	145	1	32

Yd.	feet.	inch
2348	6	35
4132	5	28
5423	4	16
6341	2	24
4236	3	23
8315	1	63
1824	3	58
5311	2	34
4238	4	28
42171	5	21
39822	7	130
42171	5	21

Subtraction of Money Weights and Measures.

£.	s.	d.
574	16	8 ¼
347	12	9 ¼
227	3	11 –
574	16	8 ¼

£.	s.	d.
1247	10	8 ½
824	14	9 ¼
422	15	11 ¼
1247	10	8 ½

£.	s.	d.
179	7	10 ¾
83	9	10 ½
95	18	0 ¼
179	7	10 ¾

£	s.	d.
316	3	5 ½
218	2	1 ¾
98	1	3 ¾
316	3	5 ½

Troy Weight

lb.	Oz.	dwt	gr
52	1	7	2
39	0	15	7
13	0	11	19
52	1	7	2

lb.	Oz.	dwt	gr
4	2	2	7
5	7	1	5
1	7	1	2
4	2	2	7

Avoirdupoise Weight.

ton.	cwt.	qr.	lb.	Oz.	dr.
100	10	7	11	14	13
15	13	1	10	12	15
84	17	5	21	1	14
100	10	7	11	14	13

Cwt.	qr.	lb.
59	1	11
19	3	27
39	1	12
59	1	11

Apothecaries Weight.

lb.	3.	3	℈	gr
422	3	4	1	13
311	7	5	2	10
110	7	6	2	3
422	3	4	1	13

lb.	3.	3	℈
115	2	1	0
17	5	2	1
97	8	6	2
115	2	1	0

Cloth Measure

Yard.	qr.	nl
251	1	2
127	3	3
123	1	3
251	1	2

Ell. F.	qr	nl
189	2	1
120	2	2
68	5	3
189	2	1

Wine Measure

Hhd.	gal	qts	pt.
147	47	2	1
128	59	3	0
18	50	3	1
147	47	2	1

Pun.	gal	qt	pt
1800	50	2	1
1262	61	3	1
537	72	3	0
1800	50	2	1

Long Measure.

fur.	po.	yd.	feet	in	bar
3468	33	4	1	11	1
2324	31	3	2	10	2
1144	2	0	2	0	2
3468	33	4	1	11	1

lea	m.	fur	po
147	2	6	29
58	2	7	33
88	2	6	36
147	2	6	29

W. M.

Hhd.	gal	qt	pt
100	36	3	1
9	27	3	1
91	9	0	0
100	36	3	1

Hhd.	gal	qts
127	27	1
112	50	2
14	30	3
127	27	1

Dry Measure

ste	bus	pc
86	1	3
14	0	2
72	1	1
86	1	3

bus	peck	gal	pt	qt
115	2	0	1	1
10	3	1	0	1
104	2	1	1	0
115	2	0	1	1

Square Measure.

S. M.	acre	roods	rod
608	406	3	22
142	400	2	33
466	6	0	29
608	406	3	22

yd	feet.	in
2341	6	108
1411	7	100
929	8	8
2341	6	108

Time Measure

yr	mth	week	d.	h.	m	sec
3486	11	3	5	15	23	52
2134	11	3	6	13	21	53
1351	11	3	6	2	1	59
3486	11	3	5	15	23	52

yr	mo.	we.	da
149	8	2	4
123	9	3	5
25	10	2	6
149	8	2	4

Solid or Cubic Measure.

Yd	Ft	In.
48	24	1234
40	26	1659
7	24	1303
48	24	1234

Load	H. T.	Inc
450	30	161
195	36	1243
254	43	646
450	30	161

Multiplication (Compd.)

Money.

£	S.	d.
5462	14	11 ½
		5
27313	14	9 ⅔

£	S.	d.
549	18	11 ¼
		6
3299	13	7 ⅔

£	S	d.
2049	18	4 ½
		9
18449	5	4 ⅔

£	S	d.
980	19	11 ¾
		12
11771	19	9 —

Troy Weight.

lb.	oz.	dwt.	Gr
14	9	14	17
			5
74	0	13	13

lb.	oz.	dwt.	gr
825	8	19	22
			8
6605	11	19	8

Avoirdupois Weight.

Ton.	cwt.	qr.	lb.	oz.	dr
384	17	1	14	11	14
					7
2694	1	2	19	3	2

Ton.	cwt.	qr.	lb.
29	16	3	25
			9
268	12	3	1

Apothecaries' Weight.

lb.	3.	3.	℈	grs
118	9	6	2	18
				12
1425	10	3	1	16

lbs	oz	dr.	℈	grs
495	10	7	2	15
				12
5950	11	7	0	0

Cloth Measure

Fr. C qr. nl. in
4563 " 2 " 3 " 1
11
50203 " 1 " 1 " 2

Eng. Ell qrs. nls. inc
8900 " 4 " 3 " 2
12
106811 " 4 " 2 " 1½

Long Measure

fur. po. yd. ft. inc bar
418 " 32 " 4 " 2 " 10 " 2
10
4188 " 8 " 5 " 1 " 10 " 2

lea m fur po yd.
4832 " 2 " 6 " 38 " 4
9
43496 " 1 " 6 " 25 " 3

Wine Measure

A B. gall. qt. pt.
843 " 8 " 3 " 1
12
10126 " 6 " 2 " 0

gall. qt. pt. gills
3008 " 2 " 1 " 3
6
18052 " 1 " 0 " 2

Ale and Beer Measure

Kil. fir gall. qt. pts
348 " 1 " 8 " 3 " 1
12
4187 " 1 " 7 " 2 " 0

Hhd. bbl. kil fkn. gall. qt. pts
65 " 1¼ " 1 " 1 " 6 " 3 " 1
12
708 " 2 " 0 " 1 " 1 " 2 " 0

Dry Measure

Last. wey qr. coom. sk. bus. pks gal.
1433 " 1 " 4 " 0 " 1 " 1 " 3 " 1
9
12905 " 1 " 0 " 0 " 1 " 0 " 3 " 1

wey qr. coom. sk. bus
304 " 3 " 1 " 0 " 1
6
1828 " 1 " 1 " 1 " 0

Solid or Cubic Measure

yds ft. In
1800 " 24 " 1234
12
21610 " 26 " 984

Tons ft hu timbr in
854 " 46 " 1684
9
7694 " 22 " 1332

Square Measure.

Acre rod po yd ft. in

£24 " 3 " 32" 24" 8 " 98

11

£574 " 2 " 1 " 1¼ " 5" 70

£ s d

45467 " 14 " 10¼

11

500145 " 3 " 4¾

10

5001451 " 13 " 11 ²/₄

Pole yd. ft. in

144 " 28 " 8 " 108

12

1739 " 14¼ " 6 " 0

£ s d.

432148 " 18 " 11½ by 132

12 × 11 = 132

5185987 " 7 " 6.0

11

57043661 " 2 " 60

Troy Weight.

lbs. Oz dwt. gr

46 " 11 " 14 " 22 by 29

7 × 4 + 1 = 29

328 " 10 " 4 " 10

4

1315 " 4 " 17 " 16

46 " 11 " 14 " 22

1362 " 4 " 12 " 14

lb. Oz dwts gr.

648 " 11 " 19 " 22 by 57

6 × 9 + 3 = 57

3893 " 11 " 19 " 12

9

35045 " 11 " 15 " 12

1946 " 11 " 19 " 18

36992 " 11 " 15 " 6

Avoirdupoise Weight.

Ton. cwt. qr. lb oz dr

684 " 18 " 3 " 24" 14 " 15 x by 1 89

9 × 9 + 8 = 89

6164 " 10 " 3 " 0 " 6 " 7

9

55480 " 16 " 3 " 3 " 9 " 15

5479 " 11 " 3 " 3 " 7 " 8

60960 " 8 " 2 " 7 " 1 " 7

Ton cwt. qr lb oz dr

34 " 16 " 3 " 26 " 15 " 14 × by 97

10 × 9 + 7 = 97

348 " 9 " 3 " 17 " 14 " 12

9

3136 " 9 " 0 " 21 " 4 " 12

243 " 10 " 3 " 20 " 15 " 2

3380 " 8 " 0 " 14 " 3 " 14

Apothecaries Weight

lb. ℥ ʒ ℈ gr
28 " 11 " 6 " 2 " 19 by 257
10 × 10 × 2
289 " 10 " 5 " 2 " 10
10
2898 " 11 " 2 " 1 " 0
2
5797 " 10 " 4 " 2 " 0
1652 " 4 " 6 " 0 " 5
7450 " 5 " 2 " 2 " 5

lb. ℥ ʒ ℈ gr
32 " 11 " 5 " 2 " 18 by 801
10 × 10 × 8 + 1 = 801
329 " 9 " 5 " 2 " 0
10
3297 " 10 " 4 " 2 " 0
8
26285 " 0 " 5 " 1 " 0
32 " 11 " 5 " 2 " 18
26316 " 0 " 5 " 0 " 18

Division
of Several Denominations.

Rule. Divide the first Denomination on the left hand and, if any remains, multiply them by as many of the next less as make one of that, which add to the next, and divide as before.

Examples.

8) £. s. d.
456 " 19 " 10 ½
57 " 2 " 5 ¾
8
456 " 19 " 10 ½

9) £. s. d.
18585 " 8 " 11 ¾
2042 " 12 " 1 ¼
9
18585 " 8 " 11 ¾

Troy Weight

8) lb oz dwt. grs
864 " 11 " 18 " 23
108 " 1 " 9 " 20 — 4
8
864 " 11 " 18 " 23

7) lb oz dwt. grs
954 " 10 " 14 " 21
136 " 4 " 19 " 6 = 5
7
954 " 10 " 14 " 21

Avoirdupoise Weight

Ton. cwt. qr. lb. oz. dr.

9) 4264 " 18 " 3 " 26 " 14 " 15

473 " 17 " 2 " 18 " 8 " 12 — 3

9

4264 " 18 " 3 " 26 " 14 " 15

Ton cwt qr lb oz dr

10) 4654 " 19 " 2 " 27 " 15 " 14

465 " 9 " 3 " 25 " 3 " 3

10

4654 " 19 " 2 " 27 " 15 " 14

Apothecaries Weight

lb 3 3 ℈ grs

11) 6346 " 11 " 6 " 2 " 18

576 " 11 " 7 " 2 " 14 = 4

11

6346 " 11 " 6 " 2 " 18

lb ℥ dr sc grs

12) 5464 " 10 " 7 " 1 " 19

455 " 4 " 7 " 0 " 18 — 3

12

5464 " 10 " 7 " 1 " 19

Long Measure.

lea. mt. fur. pole

125) 8650 " 2 " 7 " 30

750

1150

1125

25

5

77

8

125) 625 (4

500

125

40

125) 4950 (39

375

1200

1125

75

lea. mt. fr pol

69 " 0 " 4 " 39

12

830 " 1 " 5 " 28

10

8304 " 2 " 5 " 0

346 " 0 " 0 " 35

8650 " 2 " 5 " 35

1 " 35

8650 " 2 " 7 " 30

Long Measure.

136) 8462 " 4 " 2 " 10 " 2 ...

816

302

272

½ 30

5½

154

15

136) 169 (1

136

33

3

101

12

136) 1222 (8

1088

134

3

136) 404 (2

272

132

Rod yd ft in BC

62 " 1 " 0 " 8 " 2

12

746 · 3 · 2 · 8 · 0

11

8213 · 3 · 2 · 4 · 0

248 · 4 · 2 · 10 · 2

8462 · 3 · 2 · 2 · 2

3 · 8 · 0

8462 · 4 · 2 · 10 · 2

Wine Measure.

4586) 56234 " 9 " 3 " 1 " 3

4586

10374

9172

1202

10

4586) 12029 (2

9172

2857

4

4580) 11431 (2

9172

2259

2

4580) 4519 (0

4

4580) 18079 (3

13758

4321

0

Ankr. gall. qt. pt. gills

12 · 2 · 2 · 0 · 3

10

122 · 3 · 3 · 1 · 2

10

1225 · 9 · 1 · 1 · 0

10

12259 · 3 · 3 · 0 · 0

4

49037 · 3 · 0 · 0 · 0

0129 · 0 · 3 · 1 · 0

1054 · 3 · 0 · 0 · 2

50221 · 4 · 3 · 1 · 2

13 · 3 · 0 · 0 · 1

50234 · 9 · 3 · 1 · 3

Ale and Beer Measure

95463 | Hhds gls qts
532416 . 36 . 3 . . .

477315
55101
54
220410
275508
95463 | 297549 0 (31
286389
111600
95463
16137
4
64551
2
95463 | 129102 (1
95463
33639

Time Measure.

673247 | Years . dys. hrs. ' "
58245768 . 5 . 22 . 54 . 51 (79 . 32 . 3 . 0 . 2

47127 29
611847 8
605922 3
5925 5
365
296280
35530 !
17765 ! !
673247 | 21028080 (32
201974 1
1430670
1346494
84176
24
2022240
168354 !
673247 | 20202406 (3
201974 1
505
60
30354

30354
60
673247 | 1821291 (2
1346494
474797

Reduction

Teaches to bring numbers from one name or denomination to another name; without altering their value.

Rule — to bring any number to a lower name, multiply by as many of the less as make one of the greater: to bring it to a higher name divide.

Money.

In 15 £. 8 s. 7 ½ d. how many farthings?

£ s d
15 " 8 " 7 ½

20

308

12

3703

4

14814

Reduce 350 £. 16 s. 8 ¼ d to farthings?

£. s. d.
350 " 16 " 8 ¼

20

7016

12

84200

4

336801

In 27 guineas how many pence?

27
21
27

54

567

12

6804 d

In 100 crowns how many farthings?

100

60

6000

4

24000

In 4873 £. 17 s. 11 ½ d how many halfpence?

£ s d
4873 " 17 " 11 ½

20

97477

12

1169735

2

2339471

In 10,000 pence howmany guineas?

12) 10.000

21) 833 " 4 (39 Gui

63

203

189

·14-4

In 1200 groats howmany crowns?

1200

4

60) 4800

80

Reduce 3807 moidores into sixpences?

3807

27

26649

7614

102789

2

205578

In £ 1000 howmany groats?

1000

20

20000

12

4) 240000

60000

In 52482 twopences howmany sixpences halfcrowns and crowns?

52482

2

6) 104964

5) 17494 sixpences

2) 3498 " 4 halfcrowns

1749 " 4 crowns

In 1000 crowns as many halfcrowns, shillings sixpences and pence howmany farthings?

Crowns

1000

60

½) 60000 halfpence

5) 30000

6000

2

12000

60000

30000

12000

6000

1000

109000

4

436000

Howmany piastres, dt 3 s. 4 d. each, are there in £ 1875. 13 s. 4 d.?

£ s d

1875 " 13 " 4

20

37513

12

40) 450160

11254

ft
12
10
120
7
840
14
3360
840
20) 11760
£588

How many 3 inch cubes could be cut out of the above, and what would be the value of each?

840
1728
5720
1080
5880
840
27) 14515520 (537600 Cubes 2½d each
135
101
81
205
189
162
162
...
0
As 1728 : 14 :: 27
in feet
12
168
27
1176
336
1728) 45360 (2½ each
3456
1080
4
1728) 4.320 (½
3456
864

Painting, Plastering, Joining &c.

Measuring by the square yard.

Note. Divide the square foot by 9, and it will give the square yard.

What should a painter charge for painting a room, the walls of which were 8 feet high the room 18 feet by 14, ceiling included at 2s 8d per yard?

14	18	14	
8	8	18	
112	144	112	
2	2	14	
224	288	252	
	224		
	252	s	d
	9)704	2	8
	3 | 1/3 84.8	12	
	32	32	
	108		
	252		
	2088		
	3 | 1/3 10 1/2		
	1 | 1/3 10 1/2		
	1 | 1/3 3 1/2		
	3 1/2		
	12)2710.		
	20)2256.4		
	£11.6.4		

What should be charged for painting 3 rooms the first 15 feet by 12 walls 7 feet high the second 13 feet by 9 walls 6 ft 9 in high, the third 20 feet by 15 walls 8 1/2 feet high at 1s 3d per yard?

feet			ft	in	ft	in
15		12	13	0	6	9
7		7	6	9	9	
105		84	78	0	60	9
2		2	99	0	2	
210		168	879	0	121	6
		210	2			
	feet	378	1750	0	ft 1/2 20	
	1/2 15		1216	0	8 1/2	
	8 1/2		2970	0	100	
	120		3780	0	10	
	7 0		5950	0	170	
	127 0		9)12770		2	
	2		14114		340	
	255		15		255	
		1 1/2	705		595	
			141			
			2115		1 2	
		4 1/3	1 1/4		1 3	
			0 1/4		12	
			12)2110 1/2		15	
			20)1758 4 1/2			
			£8 10 4 1/2			

What should be charged for painting on each side 10 doors whose measure is 6 ft 0 in high 3 ft 8 in broad at 7 1/2 d per yard?

ft	in
6	0
3	8
19	0
4	4 0
9)23	10 0
2	7 9

6	1/2	30
		60
1	1/2	15
6	1/2	2 6
3	1/2	1 3
		0 7 1/2
4)79		4 1/2
12)19	10	0 1/2
£1	13	0 1/2

Flooring Partitioning Roofing Tiling &c

Or Measuring by the square of 100 feet

These are measured by squares of 10 feet each square containing 100 feet that is by 100, therefore divide the feet in the product by 100 and it will give the number of squares.

How many squares are there in a partition measuring 36 ft 6 in long and 20 ft 5 in high and what will it come to at 4£ 10s per square?

ft	in
36	6
20	5
9399	0
180	9 0
95	79 9 0
95	99 9 0
90	
85	50
	71 9 ¼
2,0) 86	21 9 ¼
£431	1 9 ¼

		£	
		4	10
		20	
50	½	90	
25	½	4.5	
4	¼	22	0
0	⅛	3	7 ¼
3	½	0	5 ¼
		0	2 ¾
		71	9 ¼

If a house measures within the walls 25 ft 4 in long, and 15 ft 3 in broad, and the roof be of a true pitch, what will it come to roofing at one guinea per square?

ft	in
25	4
15	3
395	0
5	7·0
400	7·0
200	9·5
100	002·5·5
	0·2·5·5

2	50	21
		120
4	0	0·5
6	8	0·0 ¾
		0·0
20		120·5 ¾
		0 0·5 ¾

Bricklayers' Work.

Bricklayers always value their work at a brick and a half, or three half bricks thick, which is called the standard measure.

Rule. Multiply the total number of feet in the wall by the number of half bricks in the thickness of it, and divide the product by 3 which will give the standard measure, then divide by 272 ¼) the square of 16½ ft.) and the quotient will be the rods required. The ¼ is mostly rejected in favour of the workman.

A wall measures 782 feet in length, 9 ft high 3½ bricks thick, how much will it come to at 3£ 12s per rod?

782			3	12
9				20
7038			2/8	1/4 72
7				00
3)49266				4320
272)16422(60			1/8	1/2 18
1632				9
102			20	4347
272 = 3/8			£217·7	

Extraction of the square Root.

To extract the square is to find a number which multiplied by itself will produce the given number.

Rule.— Mark a point over the unit figure and over every alternate figure which will divide the line into periods of two figures each. Place the root whose square most nearly approximates to the first period in the quotient. Subtract the square of it from the first period. Bring down the next period to the remainder for a first dividend. Double the figures in the quotient for a divisor and find how many times it is contained in the tens of the dividend. Place the figure representing the number of times in the quotient and also as the unit figure in the divisor. Multiply the divisor by the last figure in the quotient. Subtract the product; bring down another period and proceed thus till the whole are brought down. The quotient is the root required.

What is the square root of 9025?

9025 (95.
81
185) 925
925
. . .

What is the square root of 19136?

19136 (138.
1
23) 91
69
268) 2236
2144
92
. . . .

What is the square root of 177241?

177241 (421.
16
82) 172
164
841) 841
841
. . .

What is the square root of 205209?

205209 (453
16
85) 452
425
903) 2709
2709
. . .

The square root of a vulgar fraction is found by extracting the square root of the numerator for a new numerator, and the square root of the denominator for a new denominator.

What is the square root of $\frac{16}{25}$?

16 | 4
16 | 5

25 | 5
25

What is the square root of $\frac{121}{289}$

121 | 11
1 | 17
21) 21
21

289 | 17
1
27) 189
189

What is the square root of $\frac{625}{11881}$

625 | 25
4 | 109
45) 225
225

11881 | 109
1
209) 1881
1881

What is the square root of $\frac{169}{441}$?

169 | 13
1 | 21
23) 69 | 441 | 21
69 | 4
41) 41
41

To extract the square root of a mixed number, reduce it to an improper fraction and proceed as in the last case.

What is the square root of $6\frac{19}{25}$?

$6\frac{19}{25} = \frac{169}{25}$

169 | 13
1 | 5 | 13
23 69 Ans $2\frac{3}{5}$
69
25 | 5
25

What is the square root of $29\frac{52}{81}$?

$29\frac{52}{81} = \frac{2401}{81}$

2401 | 49
16 | 9 | 49
89) 801 Ans $4\frac{5}{9}$
801

81 | 9
81

If the Vulgar fraction whose root is sought be a surd, that is a number of which the root cannot be exactly found reduce the Vulgar Fraction to a decomal and extract the required root.

What is the square root of $\frac{49}{50}$?

50) 4900.0000 (8166666
480

100
60

400
360

400
360

400
360

400
360

400
360

40

8100.0000 (9036 +
81

1803) 1900
5409

18066) 125700
108396

17304

Extraction of the Cube Root.

To extract the Cube root is to find a number which when cubed is equal to the given number.

Rule - Mark a point over every third figure beginning at the unit figure. Place the root of the first period in the quotient, and its cube under the first period. Subtract, and to the remainder bring down the next period of three figures. Multiply the square of the

quotient by 300 for a divisor. Find how often it is contained in the dividend and put the number in the quotient. Multiply the divisor by this number. Add to the product the amount of all the figures in the quotient, multiply by 30 except the last, and that product by the square of the last. To this add the cube of the last figure in the quotient, and subtract the whole from the dividend. Bring down another period, and proceed as before described.

What is the Cube root of 357911?

```
         357911 (71.
         343
14700)   14911 resolvend
         14700
           211
         14911 Subtrahend
```

What is the Cube root of 9938375?

```
         9938375 (215.
         8
1200)    1938 Resolvend
         1200
           61
         6261
         677375 Resolvend
         661500
          15875
         677375 Subtrahend
```

The Cube root of a Vulgar fraction is found by extracting the cube root of the numerator for a new numerator, and the cube root of the denominator for a new denominator.

What is the cube root of $\frac{1}{125}$! What is the cube root of $\frac{64}{125}$!

1 (1/5
1

125 (5
125

64 (4
64

125 (5
125

What is the cube root of $\frac{27}{1331}$! What is the cube root of $\frac{512}{3375}$!

27 (3
27

1331 (11
1
300) 331 resolvend
300
31
331 Subtrahend

512 (8
512

3375 (15
3375

To extract the cube root of a mixed number or fraction reduce them to an improper fraction and proceed as in the last cases.

What is the cube root of $37\frac{1}{27}$?

$37 \times 27 + 1 = \frac{1000}{27}$

1000 (3)10 1/3
1000 Ans 3 1/3

27 (3
27

What is the cube root $319\frac{17}{210}$!

$319 \times 210 + 17 = \frac{68921}{210}$

68921 ((6)41 5/6
64 Ans 6 5/6
4800) 4921 Resolvend
4800
121
4921 Subtrahend

210 (0
210

If the fraction be a surd reduce it to a decimal, and then extract the root.

What is the Cube root of $\frac{6}{7}$?

```
7) 6000.000000 ( 857142857
   56
    40
    35
     50
     49
      10
       7
       30
       28
        20
        14
         60
         56
          40
          35
           50
           49
            1

         857142857 ( 949+
         729
24300)   128142
          97200
           4384
         101584
2550800)  26558857
          22957200
            1197999
          23076999
           3481858
               11
```

Extraction of the Biquadrate Root.

To extract the biquadrate Root is to find out a number which being involved four times into itself will produce the given number.

Rule.— First extract the square root of the given number, then extract the square root of that square root, and it will give the biquadrate root required.

What is the biquadrate root of 27?

27
27
189
54
729
27
5103
1458
19683
27
137781
39366
5314410 Ans

What is the biquadrate root of 531441?

531441 (729
49
142) 414
284
1449) 13041
13041
....

What is the biquadrate root of 76?

76
76
456
532
5776
76
34656
40432
438976
76
2633856
3072832
333621176 Ans

What is the biquadrate root of 333621176?

333621176 (5776
25
107) 836
749
1147) 8721
8029
11546) 69276
69276
.....

5776 (76
49
146) 876
876
....

729 (27
4
47) 329
326

Allgation Medial.

Is when the quantities and price of several samples are given to be mixed, to find the mean price of that mixture.

Rule. — *As the whole composition: is to its total value :: so is any part of the composition: to the mean price.*

A vinter mingles 15 gallons of Canary at 8s per gallon, with 20 gallons at 7s 4d per gallon, 10 gallons of sherry at 6s 8d per gallon, and 24 gallons of white wine at 4s per gallon, what is the worth of a gallon of this mixture?

gall	s	d	s	d
15	× 8	0	= 120	0
20	× 7	4	= 146	8
10	× 6	8	= 66	8
24	× 4	0	= 96	0
69			429	4

gal	s	d	gal
As 69	—	429 · 4	— 1

12

69) 5152 (74 1/2

483

320

276

440

414

69) 184 (2/3

138

460

69

1

A grocer mingles 4 cwt of sugar at 50s per cwt, 7 cwt at 43s per cwt and 5 cwt at 37s per cwt. I demand the price of 2 cwt of this mixture?

cwt	s	s
4	× 50	= 224
7	× 43	= 301
5	× 37	= 185
16		710

cwt	s	cwt
As 16	—— 710	—— 2

2

16) 1420 (20) 88

128 £ 4 · 8 · 9 Ans

140

128

12

12

16) 144 (9

144

If I mix 27 bushels of wheat at 5s 6d per bushel with the same quantity of rye at 4s per bushel, and 14 bushels of barley at 2 · 8d per bushel, what is the worth of a bushel of this mixture?

bus	s	d	s	d
27	× 5 ·	6	= 148 ·	6
27	× 4 ·	0	= 108 ·	0
14	× 2 ·	8	37 ·	4
68			293 ·	10

bus	s	d	bus
As 68	—— 293 ·	10	—— 1

12

68) 3526 (12) 51

340 £ 4 · 3 3/4

126

68

58

4

68) 232 (3/4

204

28

68

If 50 Dutch pence be worth 65 French pence,
how many Dutch are equal to 350 French pence!

F. P. D. P. F. Pence

As 65 : 50 :: 350

50

65) 17500 (269 15/65.

130

450

390

600

585

15

65

Falls
49
0
6
3
9
3
5
6
4/7
8/9

If 12 yards at London make 8 ells at Paris,
how many ells at Paris will make 64 yards
at London?

yds ells yds

As 12 : 8 :: 64

8 Ells

12) 512 (42 8/12

48

32

24

8

12

Conjoined Proportion.

Is when the coin, weight or measures of several countries are compared in the same question: or it is linking together a variety of proportions. When it is required to find how many of the first sort of coin, weight, or measures, mentioned in the question, are eaqual to a given quantity of the last.

Rule: Place the numbers alternately, beginning at the left hand, and let the last number stand on the left hand; then multiply the first row continually for a dividend, and the second for a divisor.

Proof. By as many single Rules of Three as the question requires.

If 12 Hs at London make 10 Hs at Amsterdam, 100 Hs at Amsterdam 120 Hs at Thoulouse how many Hs at London are eaqual to 40 Hs? at Thoulouse?

left	Right	
12	10	$12 \times 100 \times 40 = 48000$
100	120	$10 \times 120 = 1200$
40		

$$1200 \overline{)48000} \; 40$$
$$4800$$
$$\overline{\quad\quad} \; 0$$

If 140 braces at Venice are eaqual to 156 braces at Leghorn, and 7 braces at Leghorn equal to 4 ells English, how many braces at Venice are eaqual to 16 ells English?

left	right	
140	156	$140 \times 7 \times 16 = 15680$
7	4	$156 \times 4 = 624$
16		

$$624 \overline{)15680} \; 25\tfrac{80}{624}$$
$$1248$$
$$\overline{\quad\quad}$$
$$3200$$
$$3120$$
$$\overline{\quad\quad}$$
$$80$$
$$624$$

Wine Measure

Anchors	Bdy.	gal.	qt.	pt.
4632	" 6	" 3	" 1	
48	" 7	" 3	" 1	
56	" 9	" 0	" 1	
347	" 8	" 2	" 0	
856	" 9	" 0	" 1	
738	" 4	" 3	" 0	
4598	" 6	" 2	" 1	
7321	" 0	" 1	" 1	
8596	" 9	" 3	" 0	
27198	" 3	" 0	" 0	
22565	" 6	" 0	" 1	
27198	" 3	" 0	" 0	

Tons.	Pipe.	Hhd	Galls
493	" 1	" 1	" 49
864	" 0	" 1	" 50
999	" 1	" 0	" 46
854	" 0	" 1	" 43
368	" 1	" 0	" 49
254	" 1	" 1	" 53
462	" 0	" 1	" 45
498	" 1	" 0	" 46
993	" 0	" 1	" 54
5469	" 1	" 0	" 57
5275	" 1	" 1	" 8
5769	" 1	" 0	" 57

Long Measure.

yd.	fet	inc.	bar
225	" 1	" 9	" 1
171	" 0	" 3	" 2
52	" 2	" 3	" 2
397	" 0	" 10	" 1
154	" 2	" 7	" 2
137	" 1	" 4	" 1
1139	" 0	" 3	" 0
913	" 1	" 5	" 2
1139	" 0	" 3	" 0

bea.	m.	fur.	p.
72	" 2	" 1	" 19
27	" 1	" 7	" 22
35	" 2	" 5	" 31
79	" 0	" 6	" 12
51	" 1	" 6	" 17
72	" 0	" 5	" 21
339	" 1	" 1	" 2
266	" 1	" 7	" 23
339	" 1	" 1	" 2

Deg.	mel.	fur.	po.	lt	in.	bar.
217	" 17	" 9	" 19	" 14	" 9	" 1
733	" 17	" 4	" 16	" 13	" 3	" 2
283	" 53	" 5	" 19	" 12	" 2	" 2
346	" 26	" 6	" 23	" 13	" 4	" 1
189	" 32	" 3	" 27	" 14	" 5	" 2
176	" 14	" 2	" 15	" 15	" 6	" 2
921	" 15	" 4	" 18	" 16	" 7	" 1
464	" 54	" 5	" 36	" 18	" 11	" 1
459	" 36	" 4	" 22	" 16	" 7	" 2
732	" 61	" 5	" 19	" 15	" 6	" 2
4524	" 53	" 2	" 22	" 15	" 5	" 1

mel.	fur.	po.	yd.	ft.
896	" 7	" 13	" 4	" 2
129	" 6	" 26	" 2	" 1
167	" 4	" 19	" 3	" 2
157	" 3	" 15	" 2	" 2
286	" 2	" 27	" 1	" 1
194	" 5	" 32	" 2	" 2
176	" 4	" 18	" 5	" 2
99	" 6	" 39	" 4	" 1
8	" 7	" 26	" 5	" 2
5	" 4	" 25	" 3	" 1
2108	" 5	" 33	" 0	" 0

Troy Weight

lbs	ȝ	ȝ	ȝ	grs
52	10	6	2	16
48	11	7	1	18
57	9	5	2	14
85	10	6	0	15
94	9	7	1	14
86	10	4	1	19
74	1	0	0	4
501	4	7	0	0
448	6	0	0	4
501	4	7	0	0

lbs	ȝ	ȝ	ȝ	grs
464	10	7	2	18
72	11	6	1	19
54	9	4	0	14
69	10	7	2	18
567	9	4	0	14
432	10	5	1	17
94	11	7	0	16
56	8	2	1	14
1814	11	6	1	10
1350	0	6	1	12
1814	11	6	1	10

Avoirdupois

Cwt	qrs	lbs	Oz
418	3	20	14
563	2	19	15
92	1	14	13
84	0	25	15
976	1	23	14
843	0	25	15
365	1	24	13
489	3	27	16
48	0	14	13
3852	2	3	0
3483	2	10	2
3802	2	3	0

Tons	Cwts	qrs	lbs	Oz	Drs
56	19	3	27	14	15
42	18	2	24	13	12
57	16	1	25	15	10
23	15	2	23	14	15
54	10	0	22	13	14
56	4	3	18	15	13
98	3	0	14	10	12
107	12	2	16	11	10
111	10	1	23	0	8
629	12	1	2	15	13
592	12	1	3	0	14
629	12	1	2	15	13

Hay and Straw-Measure

Lds	Lds	lbs
543	24	48
98	32	59
24	31	46
697	34	51
3	6	4
2	4	54
984	35	32
932	20	18
48	35	31
67	30	00
3169	5	43
2625	16	55
3169	5	43

Load	Cwts	lbs
984	32	24
67	34	25
48	33	21
97	21	26
41	37	54
63	10	8
375	4	9
842	5	4
68	16	19
2390	17	10
1605	20	22
2390	17	10

Case 3rd

If the number be above 20 and be found in the Multiplication Table, multiply by each of the two numbers which make it.

Multiply 847208 by 24

6 × 4 = 24

5083248

4

20332992

Multiply 7360124 by 28

4 × 7 = 28

29440496

7

206083472

Multiply 452901 by 48

6 × 8 = 48

2717406

8

21739248

Multiply 37284631 by 96

2 × 8 = 96

74569262

8

596554096

Multiply 74208452 by 132

12 × 11 = 132

890501424

11

9795515664

Multiply 500708041 by 144

12 × 12

600850092

12

7210201104

Case 4th

When the multiplier is above 20 and not the product of any two numbers under 12, multiply by the unit figure of the multiplier, as in case 1; then multiply by the figure which stands next to the unit, and so with each in succession, taking care to place the first figure in each line under the figure by which you multiply.

5241
370

Proof
0 6
3 0

26205
36687
15723

1965375

Proof 7385264
765

0 0
8 0

369263 20
44311584
516968448

5649726960

976387 06
8658

781109648
488193530
585832236
781109648

845355591654 8

36208475
1324

144833900
72416950
1086254 25
362084 75

47940020900

14

70231 5079
640065

3511753 95
421410474
28094031 6
421410474

449550158401 35

10370156
40043

311104 68
62220936
5185078 0
41480624

467310339828

2394876 35
70096

14369258 10
1197438175
215538875
16764134 45

1678702946790 60

3847030654 0
900370500

1923515327000 0
269292145 78
11541091962

346232758 86

3463752913457307000 0

In 360 pence as many farthings and guineas, howmany crowns and pounds, and of each an equal number?

£	s	
1	5	360
20	12	4
20	60	1440
12	4	
240	240	
4	960	
960	1200	

360
21
360
720
7560
12
90720
4
362880
1440
360
12|00) 3640|80
303 X 1080

A labourer dug up an equal number of ancient gold silver and copper coins; each gold coin was worth 22s. 6d. each silver one 3s. 9d. and each copper one 1d. the value of the whole was £65-16s-8d. howmany were there of each sort?

s. d	£ s d
22-6	65-16-8
3-9	20
1	1316
26-4	12
12 310	15800 (50
316	1580

In a public school half the boys wrote in copy books, and paid 3d. each per week, 99 paid 2d. each per week, and 59 paid 1d. howmany did the school contain and what was the weekly receipt?

59	99	99
1	2	59
59	198	158
		2
158		316 Boys
3		
474		474
		198
		59
		12) 731
		20) 6-11
		3-11

A gentleman meeting a number of poor people, divided among them the contents of his purse: to every man he gave half a crown, to every woman half as much, and to every child 3d. the number of each was equal, and the whole bounty amounted to £5. 8s howmany did he relieve?

£ s	
5 8	
20	
108	
12	
1296 (	27
96	3
336	81
336	
0	

Troy Weight

In 17 lbs of gold how many grains?

17
12
204
20
4080
24
16320
8160!
97920

In a silver tea pot weighing 15 ozs 10 dwts how many grains?

Of dwts
15 " 10
20
310
24
1240
620!
7440

In 18 ingots of silver, each weighing 6 lbs. 10 ozs. 17 dwts. and 6 ingots each weighing 7 lbs. 2 ozs. 18 grs. how many dwts?

lbs. oz. dwt. grs
7 " 2 " 0 " 18
6
43 " 0 " 4 " 12

lbs. oz. dwt. grs
6 · 10 · 17 · 0
9
62 · 1 · 13 · 0
2
124 · 3 · 6 · 0
43 · 0 · 4 · 12
167 · 3 · 10 · 12
12
2007
20
40150

Required the quantity of gold to make 7 watch cases, each weighing 1 ozs. 18 grs. and 9 others of 1 oz. 10 dwts. each?

oz. dwt. grs
1 · 10 · 0
9
13 · 10 · 0
7 · 5 · 6
20 · 15 · 6

oz. dwt. grs
1 · 0 · 18
7
7 · 5 · 6

Avoirdupoise Weight.

In 9 cwts. 3 qrs. 14 lbs. 8 ozs. howmany drams?

cwts. qrs. lbs. oz

9 " 3 " 14 " 8

4

39

28

320

781

1106

16

6644

1106:

17704

16

106224

17704:

283264

In 9 great pounds of silk each 24 ozs. howmany drams?

9

24

216

16

1296

216:

3456

How many tons in 4720681 ozs?

tons.

35840) 4720681 (131

35840

113668

107520

61481

35840

10) 25641

28) 1602 = 9

4) 57 = 6

14 = 1

How many parcels, each weighing 2 lbs. 10 ozs. 13 drs. are there in 14 cwts?

lbs oz. drs. — cwts

2 " 10 " 13 — 14

16 — 4

42 — 56

16 — 28

255 — 448

431 — 112:

685 — 1568

16

9408

1568:

25088

16

150528

25088:

685) 4014.08 (585.X

3425

5890

5480

4108

3425

683

Apothecaries Weight.

In 21880 grains how many pounds?

20)21880
3)1094
8)364-2
12)45-4
3-9-4-2

Required the difference in grains between 7 parcels, each weighing 4 lb. 7 ℥. 3 ʒ. and 2 dozen of 11 ℥. 6 ℥. 2 ʒ. each?

lbs. ℥. ʒ.
0 · 11 · 6 · 2 by 24
6 × 4 = 24
5 · 11 · 0 · 0
4
23 · 8 · 0 · 0

lbs. ℥. ʒ.
4 · 7 · 3 · 0
7
32 · 3 · 5 · 0
23 · 8 · 0 · 0
· 8 · 7 · 5 · 0
12
103
8
829
3
2487
20
Ans 49740

How many packages of 10 ℥. are there in 56 lbs. of bark?

lbs.
56
℥ 12
10)672(67X
60
72
70
2

In 3 lbs. 9 ℥. 4 ℥. 2 ʒ. how many grains?

℥. ℥. ʒ.
3 · 9 · 4 · 2
12
45
8
364
3
1094
20
21880

Cloth Measure.

In 764 nails how many inches?

4) 764

2¼

1528

191

1719

In 29 pieces of holland, each containing 36 ells Flemish how many yards?

36

29

324

72

1044

3

4) 3132

Ans. 783.

In 7591 yards how many French ells?

7591

4

6) 30364

5060

In a piece of linen measuring 21 English ells, how many shirts can be cut of 3¾ yards each?

E. ells

21

3¾ 5

4/15) 105 (7

105

Long Measure.

In 97 miles how many inches?

mls

97

8

776

40

½) 31040

5½

155200

15520

170720

3

512160

12

6145920

In 6145920 inches how many miles?

inches

12) 6145920

3) 512160

1760) 170720 (97

15840

12320

12320

Land Measure.

In 123 acres how many perches?

acres
123
4
492
40
19680

In 19680 perches how many acres?

40) 19680
4) 492
123

How many gardens of 15 poles, 4 yards each, can be made from a field of 8 acres?

acres
8
4
32
40
1280

pole. yd.
15 . 4
30 1/4
484
4
524

30 1/4
38400
320
41600 (79+
3588
4920
4716
204

Three small farmers had each 7 acres, 20 cottagers 1 acre. 2 roods, and 19 acres 3 roods 29 poles were occupied by 24 poor labourers, what was the whole content in perches?

a. r. po.
7 . 0 . 0
3
21 . 0 . 0

a. r.
1 " 2 by 20
10 × 2 = 20
15 . 0
2
30 . 0
21 " 0 " 0
19 " 3 . 29
70 . 3 . 29
4
283
40
Ans. 11,349 perches

Wine Measure.

In a pipe of sherry how many pints?

Pipe
1
2
$\frac{1}{2}$) 2
$1\frac{1}{2}$
2
1
3
42
126
4
504
2
1008

How many $1\frac{3}{4}$ pint bottles, can be filled from a hogshead of brandy?

h. d
1
63
4
252
2
$1\frac{3}{4}$ 504
4 4
7) 2016 (288
14
61
56
56
56
0

In 25 tuns of wine, how many pints

Tuns
25
2
50
3
150
42
300
600
6300
4
25200
2
50400

In 12096 pints, how many puncheons?

Pts
2) 12096
4) 6048
42) 1512
2) 36
18

Ale and Beer Measure.

In 416 hogsheads of porter hownany punts?

hhd.
½) 416,
1½
416
208
524
2
1248
2
2496
9
22464
4
89856
2
Ans. 179712

Hownany punts in 864 butts?

butts.
864
2
½) 1728,
1½
1728
864
2592
2
5184
2
10368
9
93312
4
373248
2
Ans 746496

Hownany Kilderkins, in 843 butts?

butts.
843
2
½) 1686,
1½
1686
843
2529
2
Ans 5058

In 300 barrels, hownany hogsheads?

Bar
300
2
3) 600
Ans 200

Dry Measure.

In 276 quarters of corn how many pecks?

Quar
276
2
552
2
1104
2
2208
4
Ans 8832 pecks

In 3 lasts of barley how many pints?

Last
3
2
6
5
30
2
60
2
120
2
240
4
960
2
1920
4
7680
2
Ans 15360

How many horses would 7 lasts of oats feed, allowing half a peck to each?

Lasts
7
2
14
5
70
2
140
2
280
2
560
4
2240
2
Ans 4480

How long will 10 tons of coals suffice for 3 fires of which each burns 20 pounds daily?

tons
10
20
200
4
800
28
5400
1600
20) 22400
3) 1120
Ans 373 1/3

Time Measure

In 7 years how many hours?

yrs
7
365
2555
24
10220
5110
61326

In 10 yrs. 3 mo. 21 ds. how many hours?

yrs mo. ds
10 " 3 " 21
12
123
30
3711
24
14844
7422
89064

From the birth of our Saviour to the end of the year 1832, how many seconds?

1832
1832
12
21984
4
87936
7
615552
24
2462208
1231104
14773248
60
886394880
60
53183692800

Duodecimals.

A foot is divided into 12 parts, called inches (in.); each inch into 12 parts, called seconds (″) each second into 12 parts, called thirds (‴), and each third into 12 parts, called fourths (⁗), according to the following table:—

12 fourths (⁗) make 1 third.
12 thirds (‴) make 1 second.
12 seconds (″) make 1 inch.
12 inches make 1 foot.

Rule.— Write the given numbers as in Addition, Multiply the lowest name of the multiplicand, by the highest name of the multiplier, then by the next lower names in succession, and add the products together.

Multiply 24 ft. 4 in by 7 ft. 9 in.

ft.	in
29	4
7	9
205	4
22	0 0″
227	4 0″

Multiply 14 ft. 3 in 6 ″ by 5 ft. 4 in.

ft.	in	″
14	3	6
5	4	
71	5	6
4	9	2
76	2	8

Multiply 18 ft. 5 in 3 ″ by 6 ft. 3 in. 8. ‴

ft.	in	″
18	5	3
6	3	8
110	7	6
4	7	3 9
12	3	8 0
116	3	1 3 0

Multiply 9 ft. 5 in. 7 ″ by 7 ft. 4 in 10 ‴

ft.	in	″
9	5	7
7	4	10
66	3	1
3	1	10 4
	7	10 7 10
70	0	9 11 10

Rule of Three Direct.

Rule:- Put in the Third place that term which is of the same kind as the answer.

~~If the answer is to be greater than the third term place the greatest of the remaining terms in the Second place. If the answer is to be less than the third term, put the least terms in the Second place.~~

~~Put the remaining term in the First place.~~

Multiply the second and third terms together and divide by the first.

Rule of Three Direct.

Teacheth by three numbers given to find a fourth, in such proportion to the third as the second is to the first.

Rule:- First state the question, that is, place the numbers in such order, that the first and third be of one kind, and the second the same as the number required; then bring the first and third numbers into one name, and the second into the lowest term mentioned. Multiply the second and third numbers together, and divide the product by the first, the quotient will be the answer to the question in the same denomination as you left the second number in.

At 10½ d. per £ what is the value of 7 cheeses, each weighing 20 £. 11 ozs. ?

If	1	10½	20 · 11
	16	4	7
	16	42	186 · 13

16

1119

187

2989

42

59718

16) 119556

12) 7846

20) 1961-½

£ · 8 · 3 · 5½

125 · 3 · 8

112

13 5

135

128

· 73

64

· 98

96

· 2

8

How many yards of cloth can I have for 402 £. 5 s if 6 yards cost £1. 8 s. 8 d. ?

£	s	d
If 1	8	8
	20	
	28	
	12	
	344	

£.	s
402	5
	20
	8045
	12
	96540
	6

344) 579240 (1683 · 3 · 1 yds. qrs. nl.

344
2352
2064
2884
2752
1320
1032
288
4
344) 1152 (3
1032
120
4
344) 480 (1
344
136

If 1 lb of sugar cost 7½ d. what will 10 cwt. 2 qrs. 16 lbs. come to?

lb	d	cwt.	qrs.	lbs
If 1	7½	10	2	16
	4		4	
	30		42	
			28	
			342	
			35	
			1192	
			30	

4) 35760
12) 8940
20) 745
£ 37 · 5 s.

A draper bought 20 peices of cloth, each of 36 yards, at £3. 15s. for 6 yards, what was the cost?

yds £. s.

If 6 —— 3.15 —— 20 by 36

20 36

75 720

720

1500

525

5)54000

20)9000

450

If an ounce of fine gold is sold for £5. 10s. what will 15 ingots come to, each weighing 14lbs. 7ozs. 3 dwts. 17grs.

lb. £. s. lb. oz. dwt. grs.

If 1 —— 3.10 —— 218.11.15.15

20 20 12

20 70 2627

24 20

80 52555

24

480 210225

105111

1251335

70

480) 88293450 (20) 183944

480 £. 9. 197. 4s. 8¼d.

4029

3840

1893

1440

4534

4320

2145

1920

2250

1920

330

12

480) 3960 (8

3840

120

4

480) 480 (¼

480

...

Five hogsheads of sugar, each weighing 7 cwts. 3 qrs. 27 lbs. at £3·10s.10½d. per cwt.?

cwt	£ s d.	cwt qr. lbs.
If 1	3·10·10½	39·3·23
4	20	4
4	70	159
28	12	28
112	850	1275
4	320	4475
3402	3402	8950
	17900	
	13425	

112) 152239.50

112	
402	
336	
663	
560	
1039	
1008	
315	
224	
910	
896	
14	

4) 135928

12) 33982

20) 2831·10

£141·11s.10d.

If 4 lbs of soap cost 1s.7d. what cost 23 lbs?

lbs.	s d	lbs
If 4	1·7	23
	12	19
	19	207
		23
		4) 437
		12) 109¼
		9s 1¼d.

If 14 yards of cloth cost 16 s. 9¾ d. what will 48½ yards cost?

yds	s	d	yds qrs
If 14	16	9¾	48 · 2
4	12		4
56	201		194
	4		807
	807		3228
			7263
			807

56) 156558 (4) 2795

112 12) 698 · ¾

445 20) 58 · 2

392 £ 2 · 18 s. 2¾ d.

535

504

318

280

38

If 3 lbs of tobacco cost 11 s. 5 d. what will 14 tons 17 cwt 3 qrs come to?

lbs	s	d	ton cwt qrs
If 3	11	5	14 · 17 · 3
12			20
137			297
			4
			1191
			28
			9528
			2382
			33348
			137
			233436
			100044
			33348

3) 4568676

12) 1522892

20) 126907 · 8

£ 6345 · 7 s. 8 d.

Simple Addition

This Rule teaches to find the sum total of any simple Numbers

Rule

Add the Units, or right hand figures together set down under them all above ever 10's and add or carry the 10's as one to the second line Proceed in the same manner with the other lines

Examples

123	1756	3145678
321	2423	4222336
435	9542	7333044
530	7666	9765321
637	3741	5532111
718	1889	6070403
906	3947	9765632
777	1068	4648056
879	2244	8490414
5332	34876	58979945

9 4 2 3 1 7 8
7 6 4 4 1 3 3
3 0 3 5 5 6 6
7 9 7 2 3 3 2
1 2 3 1 1 4 7
3 3 0 8 8 0 8
5 5 5 4 4 4 2
4 4 4 6 6 6 7
9 0 1 9 4 0 8

51 635 681

9 8 7 6 5 4 3 2 1
1 2 3 4 5 6 7 8 9
4 6 6 4 4 2 2 3
" 7 4 2 2 4 3 8
" " 9 1 1 5 5 6
" " " " " 7 6 0 4
3 6 2 9 4 7 7 7
" 7 6 3 1 1 4
" " 7 6 4 6 6 8

121084 9550

Questions

John Thomas and Harry after counting their preze money John had one thousand 3 hundred & seventy five Dollars Thomas had just three times as many as John; and Harry had just as many as John and Thomas both; pray Howmany Dollars had Harry?

1375
1375
1375
1375
5500 Ans

If one quarter of a Ship's cargo be worth eleven thousand and ninety nine dollars; howmany Dollars is the whole cargo worth?

11099
11099
11099
11099
44396 Ans

Howmuch money are in sixty bags containing each 37542 Dollars?

37542
37542
37542
37542
37542
37542
37542
225252 Ans

Required the sum of the following Numbers Viz.
Five hundred and sixty eight
8 thous. 8 hundred and five
79 thousand six hundred
Nine hundred & 11 thousand
Nine Millions & twenty six

568
8805
79600
911000
9000026
9999999 Ans

Simple Subtraction

Teaches to find the difference between two Numbers

Rule— Take the number in the units' place in the lower line from the units of the upper line, and set down the difference under it. Proceed in like manner with each of the other figures in turn. If the upper number should be less than the lower add ten to the top figure, and subtract as before, taking care to add one to the next figure in the lower line.

Examples

1)
32468
21346
11122
32468

2)
36421857
24621148
11800009
36421157

3)
87964795
28647989
59316806
87964795

4)
41678839
912486
32554453
41678839

5)
9187645320
3297793098
5889851422

6)
4321678900
1297793098
3023884802

7)
48296717
39988479
24308238

8)
500870080
300900090
199969990

9)
6842738449
6794280009
48458440

10)
1000000
765321
234679

11)
200000000
99999999
100000001

12)
10000
....1
9999

Questions

If an apricot tree had 74 apricots on it and the wind blew off two dozen how many were left?

74
24
Ans 50

If a man had to travel 640 miles, and rode 240, how far was he then from the end of his journey?

640
240
400

How old, this year is one born in the year 1815

1846
1815
Ans. 31 years

How long is it since the revolution of 1688?

1846
1688
Ans. 158 years

A boy had 375 nuts, he gave 75 to his brother 19 to his sister. three score to his cousin the monkey stole 85 and the squirrel eat 28; how many had he left.

375
267
Ans 108

75
19
60
85
28
267

A merchant bought 721 pipes of wine for £ 90846, and sold 543 pipes thereof for £89049; how many pipes has he remaining and what do they stand him in?

90846
89049
1797

721
543
178

Ans he had 178 pipes remaining and they stand him in £ 1797 8.

A butcher had a bullock which weighed 800 ℔ 2 sheep, one weighing 130 ℔ the other 98 ℔. calves weighing 159 ℔ each 2 pigs 137 ℔ each what was the gross weight of the whole

Ans 1757 ℔

A gentleman left £ 3200 to his widow £ 5000 to his eldest son £ 2000 to his brother £ 1225 to his second son and 759 to his daughter what was the whole amount left

3200
5000
2000
1225
759
Ans 12184

32
24
87
72
159
144
150
144
60
48
12 = ½

16)28136622(1758 53
16
121
112
93
80
136
128
86
80
62
48
14

20)17585 3

Ans. Guilders. 879 2 13 · 14 ½ pennings

To convert Bank Money into current and the contrary

Note. The Bank Money is worth more than the current. The difference is called agio, and is generally from ½ to 6 per cent. in favour of the Bank.

To change Bank into Courrent Money.

Rule. As 100 guilders Bank : is to 100 with the agio added :: so is the Bank given : to the current required.

To change Current Money into Bank.

Rule:- As 100 with the agio added: is to 100 Bank :: so is the current money given: to the Bank required.

To change 794 guilders 15 stivers, current money into Bank florins, agio $4\frac{3}{8}$ per cent?

Guilds.	stivs.	pens.		flor.		Guilds	stivers
As 104	7	8	:	100	::	794	15

20

2087

16

12530

2087

33400

20

15895

16

95370

15895

254320

100

33400) 25432000 (761 Guilders. 8 stivs. 11 pens. $\frac{147}{167}$

233800

205200

200400

48000

33400

14600

20

33400) 292000 (8 stivs

267200

24800

16

148800

24800

33400) 396800 (11 pens

367400

29400

147

167

200) 33400 (167

200

To change 761 guilders 9 stivers Bank into Current Money, agio 4 3/8 per cent?

fls.	Guilds. stivers pens		Guilds. stivs
As 100	: 104 . 7 . 8	: :	761 . 9
20	20		20
2000	2087		15229
	16		33400
	12530		60916 00
	2087		45687
	33400		45687
			2000) 5086 48600 = 3/10
			10) 254324 (20) 15895
			Guilds. 794 . 15 . 4 3/10 pens
	10		
	94		
	80		
	143		
	128		
	152		
	144		
	84		
	80		
	4		

VI Ireland.

A gentleman remits to Ireland £575 15s sterling, what will he receive there, the exchange being at 10 per cent?

£		£	s
As 100	: 110	: : 575	. 15
20		20	
2000		11515	
		110	
		115150	
		11515	
		2000) 126650	
		633 . 650	
		2000) 13000	20
		6 . 1000	
		2000) 12000	12
		6	

Ans £ 633 . 6 . 6

What must be paid in London for a remittance
of £633 · 6 · 6 d. Irish, exchange at 10 per cent?

£	£	£	s	d
As 110	: 100	:: 633 · 6 · 6		

20 / 2200 / 12 / 26400 / 12666 / 151998 / 100

26400) 15199800 (£. 575 . s. 15 Ans;
1320
1999
1848
1518
1320
198
20
26400) 3960 (15 s
3960
. . .

Comparison of Weights & Measures.

If 95 lbs Flemish make 100 lbs English how many lbs English are equal to 275 lbs Flemish?

lbs	lbs	lbs
As 95	: 100	:: 275

100 / 95) 27500 (289 45/95
190
850
760
900
855
45
95

200)

Vulgar Fractions.

A vulgar fraction is always expressed by two numbers, placed one above the other with a line between them. The upper number is called the Numerator the lower the Denominator.
The denominator shows how many parts the whole number is devide into; the numerator shows the number of parts taken: Thus in ½d the lower figure, the denominator, shows that the penny is to be divided into 2 parts, and the upper figure shows that 1 of the two parts is to be taken. 9/12 means that the thing is divided into 12 parts and and 9 parts are to be taken. If therefore, the thing devided be a shilling, 9/12 will be equal to 9 pence, because th 1/12 part of a shilling is one penny.

Vulgar fractions are of four sorts.

A simple fraction has one numerator and one denemenator.

A compound fraction consists of two or more simple fractions with the word of between each as ½ of ⅘ of 5.

A proper fraction has the numerator less than the denominator.

An improper fraction has the numerator equal to or greater than the denominator; as 5/5 8/5.

A whole number and a fraction together are called a mixed number as $2\frac{3}{8}$.

Reduction.

Case 1 – To find a number which will divide both the numerator and denominator without a remainder so as to reduce the fraction to its lowes terms.

Rule – Divide the lower term by the upper and that divisor by the remainder continuing the operation till nothing remains; the last divisor is the number sought.

Reduce $\frac{40}{115}$ to its lowest terms

40 ÷ 115 | 2
92
23 ÷ 40 | 2
40

$23 \div \frac{40}{115} \quad \frac{2}{5}$

Reduce $\frac{825}{1920}$ to its lowest terms

825 ÷ 1920 | 2
1650
270 ÷ 825 | 3
810
$15 \div \frac{825}{1920} = \frac{55}{128}$

Reduce $\frac{55}{9900}$ to its lowest terms

55 | 9900 | 180
55
440
440
0

$55 \div \frac{55}{9900} = \frac{1}{180}$

Reduce $\frac{45}{10000}$ to its lowest terms.

45 ÷ 10000 | 222
90
100
90
100
90
10 ÷ 45

$4.5 \div \frac{45}{10000} = \frac{9}{2000}$

Case 2 - To reduce a compound fraction to a simple one.

Rule - Multiply all the numerators together for a new numerator, and all the denominators together for a new denominator. Reduce it to its lowest terms by Case 1.

Reduce $\frac{4}{5}$ of $\frac{7}{8}$ of $\frac{5}{19}$ to a simple fraction.

$\frac{4 \times 7 \times 5}{5 \times 8 \times 19} = \frac{140}{760}$

Reduce $\frac{9}{19}$ of $\frac{3}{7}$ of $\frac{5}{11}$ to a simple fraction.

$\frac{9 \times 3 \times 5}{19 \times 7 \times 11} = \frac{135}{1463}$

Reduce $\frac{3}{5}$ of $\frac{12}{75}$ of $\frac{1}{2}$ of 10 to a simple fraction.

$\frac{3 \times 12 \times 1 \times 10}{5 \times 75 \times 2 \times 1} = \frac{360}{750}$

Reduce $\frac{1}{3}$ of $\frac{7}{12}$ of $\frac{5}{8}$ of £1 to a simple fraction.

$\frac{1 \times 7 \times 5 \times 1}{3 \times 12 \times 8 \times 1} = \frac{35}{288}$

Case - 3 To reduce a fraction to a common denominator

Rule - Multiply each numerator into all the denominators except its own for a new numerator; and all the denominators together for a new denominator.

Reduce $\frac{5}{6}\ \frac{3}{10}$ and $\frac{1}{21}$ to a common denominator.

$5 \times 10 \times 21 = 1050$
$3 \times 6 \times 21 = 378$
$9 \times 6 \times 10 = 540$
$6 \times 10 \times 21 = 1260$

Reduce $\frac{3}{7}\ \frac{14}{15}\ \frac{3}{7}$ and $\frac{4}{5}$ to a common denominator

$3 \times 15 \times 7 \times 5 = 1575$
$14 \times 7 \times 7 \times 5 = 3430$
$3 \times 7 \times 15 \times 5 = 1575$
$4 \times 7 \times 15 \times 7 = 2940$
$7 \times 15 \times 7 \times 5 = 3675$

Reduce $\frac{4}{11}\ \frac{7}{6}\ \frac{15}{16}$ and $\frac{1}{2}$ to a common denominator.

$4 \times 6 \times 16 \times 2 = 768$
$7 \times 11 \times 16 \times 2 = 2464$
$15 \times 11 \times 6 \times 2 = 1980$
$1 \times 11 \times 6 \times 16 = 1056$
$16 \times 6 \times 11 \times 2 = 2112$

Reduce $\frac{7}{11}\ \frac{1}{9}\ \frac{17}{18}$ and $\frac{13}{15}$ to a common denominator.

$7 \times 9 \times 18 \times 15 = 17010$
$1 \times 11 \times 15 \times 15 = 2970$
$17 \times 11 \times 9 \times 15 = 25245$
$13 \times 11 \times 18 \times 9 = 23166$
$9 \times 11 \times 18 \times 15 = 26730$

Case 4. To reduce an improper fraction to an equivalent whole or mixed number.

Rule Divide the numerator by the denominator.

Find the value of $\frac{48}{3}$ in whole numbers.

$3 \div 48\ \ 16$
$\frac{48}{\cdot\cdot}$

Find the value of $\frac{1203}{7}$ in whole numbers.

$7 \div 1203\ \ 180\frac{3}{7}$
$\frac{7}{50}$
$\frac{50}{3}$
$\frac{3}{7}$

Find the value of $\frac{1950}{20}$ in whole numbers.

$20 \div 1950\ \ 98$
$\frac{180}{150}$
$\frac{150}{\cdot\cdot\cdot}$

Find the value of $\frac{8045}{77}$ in whole numbers.

$77 \div 8045\ \ 104\frac{37}{77}$
$\frac{77}{345}$
$\frac{308}{37}$
77

Case 5. To reduce a mixed number to an improper fraction.

Rule. Multiply the whole number by the denominator of the fraction, add to it the numerator and place the denominator below it.

Reduce $15\frac{4}{7}$ to an improper fraction.

$$15 \times 7 + 4 = \frac{109}{7}$$

Reduce $80\frac{4}{17}$ to an improper fraction

$$80 \times 17 + 4 \quad \frac{1364}{17}$$

Reduce $33\frac{2}{3}$ to an improper fraction.

$$33 \times 3 + 2 = \frac{104}{3}$$

Reduce $45\frac{7}{11}$ to an improper fraction.

$$45 \times 11 + 7 = \frac{502}{11}$$

Case 6 — To reduce fractions of one denomination to fractions of greater denomination, retaining the same value.

Rule — Multiply the denomination as in reduction of money.

Reduce $\frac{5}{8}$ of a shilling to the fraction of a pound sterling.

$$\frac{5}{8} \times 20 = \frac{5}{160}$$

Reduce $\frac{4}{5}$ of a yard to the fraction of a mile.

$$\frac{4}{5} \times 1760 = \frac{4}{8800}$$

Reduce $\frac{9}{10}$ of 1 lb. to the fraction of a cwt.

$$\frac{9}{10} \times 112 = \frac{9}{1120}$$

Reduce $\frac{7}{12}$ of an inch to the fraction of a mile.

$$\frac{7}{12} \times 63360 = \frac{7}{760320}$$

Case 7 To reduce fractions of one denomination to a less denomination.

Rule — Multiply the numerator as in reduction of money.

Reduce $\frac{5}{11}$ of a pound sterling to the fraction of 1 d.

$$\frac{5}{11} \times 20 \times 12 = \frac{1200}{11}$$

Reduce $\frac{4}{7}$ of a guinea to the fraction of a shilling.

$$\frac{4}{7} \times 21 = \frac{84}{7}$$

Reduce $\frac{3}{10}$ of a cwt to the fraction of 1 lb.

$$\frac{3}{10} \times 112 = \frac{330}{10}$$

Reduce $\frac{3}{4}$ of a ton to the fraction of an ounce.

$$\frac{3}{4} \times 20 \times 4 \times 28 \times 16 = \frac{107520}{4}$$

Case 8 To reduce a compld fraction to an equivalent simple one.

Rule If the numerator or denominator or both contain a whole number reduce it to an improper fraction; then multiply the denominator of the lower fraction into the numerator of the upper for a new numerator, and multiply the denominator of the upper fraction into the numerator of the lower for a new denominator.

Reduce $\frac{5}{9\frac{1}{4}}$ to a simple fraction

$5 = \frac{5}{1} = \frac{20}{37}$

$9\frac{1}{4} = \frac{37}{4} = \frac{37}{1}$

Reduce $\frac{8}{19\frac{3}{7}}$ to a simple fraction

$8 = \frac{8}{1} = \frac{56}{7}$

$19\frac{3}{7} = \frac{130}{7} = \frac{130}{1}$

Reduce $4\frac{7}{8}$ to simple fraction

$4\frac{7}{8} = \frac{39}{8} = \frac{39}{11}$

$11 = \frac{11}{1} = \frac{88}{8}$

Reduce $\frac{5\frac{3}{10}}{12}$ to a simple fraction

$5\frac{3}{10} = \frac{53}{10} = \frac{53}{12}$

$12 = \frac{12}{1} = \frac{120}{1}$

Case 9 To find the value of a fraction.

Rule — Multiply the numerator by as many of the less as make one of the greater, as in reduction of money, and divide by the denominator.

What is the value of $\frac{1}{3}$ of a mule

£ s d qrs yds ft in
5 ÷ 1 0 0 0
2 26 3 2

What is the value of $\frac{3}{5}$ of a guinea.

£ s d
3 × 21 ÷ 5 = 12 7

What is the value of $\frac{2}{9}$ of a cwt

qrs lbs oz
2 × 4 × 28 ÷ 9 = 24 14 3

What is the value $\frac{4}{7}$ of an ounce

poles
4 × 40 × 4 ÷ 7 = 91 +

Case 10 To reduce a given quantity to its equivalent fractional part of any other denomination.

Rule — Reduce the given quantity to the lowest denomination mentioned for a numerator, then bring the name for a denomination the fraction is to be of, to the same

Reduce 5 s 8 $\frac{1}{4}$ d to the fraction of a pound.

£ s d
5 . 8 $\frac{1}{4}$

12
68
4
273
Ans 960

20
20
12
240
4
960

Reduce 17 s 6 $\frac{1}{2}$ d to the fraction of a farthing

£ s d
17 . 6 $\frac{1}{2}$

12
210
4
Ans 840
1

Reduce 3 s 11 3/4 d to the fraction of a penney.

s	d
3 ·	11 3/4
12	
47	1
	4
4	4
Ans 191	
4	

Reduce 3 grs 14 lbs to the fraction of 1 cwt.

grs	lbs	cwt
3 ·	14	1
28		20
98		20
As 112		

Addition.

Rule. Reduce the fractions to a common denominator add all the numerators together and place the common denominator under them.

Add together 2/5. 7/8 and 9/10.

2 × 8 × 10 = 160
7 × 5 × 10 = 350
9 × 5 × 8 = 360
870 = 2·70
5 × 8 × 10 = 400 = 400

Add together 5/10 3/14 7/9 and 8/9.

5 × 14 × 9 × 9 = 5670
3 × 11 × 9 × 9 = 2673
7 × 11 × 14 × 9 = 9702
8 × 11 × 14 × 9 = 11088
29133
11 × 14 × 9 × 9 = 12474

When the fractions are of several denominations, reduce them to their simple values, and add them together.

Add 3/10 of a ton to 4/9 of 1 cwt.

	cwt	qrs	lbs	ozs	drs
3/10 of a ton =	6	0	0	0	0
4/9 of 1 cwt =	1	2	1	12	7
cwt	0	1	2	1	12 · 7 +

What is the amount of 1/7 of a guinea 7/40 of a sovereign and 7/9 of a shilling.

	gns	s	d
1/7 of	1 =	3	0
		3	0
7/40 of	1 =	0	9
7/9 of	1 =	0	3 1/4
		1	7 3 1/4

Subtraction.

Rule — Reduce them to a common denominator, and subtract one from the other.

From 5/11 take 14/87.

5 × 87 = 435
14 × 11 = 154
281
11 × 87 = 957

From 60/57 take 59/60.

60 × 60 = 3600
59 × 59 = 3481
119
57 × 60 = 3540

If the fractions are of different denominations, find their simple values, and subtract one from the other.

From $\frac{5}{9}$ of a pound sterling take $\frac{2}{7}$ of $\frac{1}{5}$ of a pound.

$2 \times 1 = 2$
$7 \times 5 = 35$

$\frac{5}{35}$ of £1 = 11s. 1 $\frac{1}{4}$d.
$\frac{2}{35}$ of £1 = 1s. 1 $\frac{1}{2}$d.
9s. 11 $\frac{3}{4}$d.

From $\frac{5}{7}$ of a ton take $\frac{1}{2}$ of $\frac{3}{4}$ of a cwt.

$1 \times 3 = 3$
$2 \times 4 = 8$

	cwt	qrs	lb
$\frac{5}{7}$ of a ton =	14	1	4
$\frac{3}{8}$ of a cwt =	1	14	
cwt	13	3	18

From $\frac{3}{4}$ of a £ take $\frac{3}{4}$ of a shilling.

$\frac{3}{4}$ of a £ =	15	0	
$\frac{3}{4}$ of as =		9	
	14	3	

From $\frac{3}{4}$ of a lb Troy take $\frac{1}{5}$ of an ounce.

		oz	dwt	grs
$\frac{3}{4}$ of	1 lb =	9	0	0
$\frac{1}{5}$ of	1 oz =		3	8
		8	10	16

Multiplication.

Rule. - Reduce the mixed numbers to improper fractions, and compound fractions to simples ones, then multiply all the numerators together for a new numerator, and all the denominators together for a common denominator.

Multiply $\frac{5}{7}$ of $\frac{9}{11}$ by 8 $\frac{4}{5}$.

$5 \times 9 = 45$
$7 \times 11 = 77$

$8\frac{4}{5} = \frac{44}{5}$

$44 \times 45 = 1980 = 5 \cdot 55$
$5 \times 77 = 385 = 385$

Multiply 42 $\frac{3}{10}$ by $\frac{1}{2}$ of $\frac{5}{6}$ of 4.

$1 \times 5 \times 4 = 20$
$2 \times 6 \times 1 \quad 12$

$42\frac{3}{10} = \frac{423}{10}$

$423 \times 20 = 8460 = 70\frac{1}{2}$
$10 \times 12 = 120 = \frac{1}{2}$

Division.

Rule - Reduce the fractions as in Multiplication invert the divisor, and proceed as in Multiplication.

Divide 8 $\frac{3}{5}$ by $\frac{1}{2}$ of $\frac{4}{5}$ of 5

$8\frac{3}{5} = \frac{43}{5}$

$1 \times 4 \times 5 = 20$
$2 \times 5 \times 1 = 10$

$\frac{43 \times 10}{5 \times 20} = \frac{430}{100} = 4 \cdot \frac{3}{10}$

Divide $\frac{1}{7}$ of $\frac{2}{3}$ of 18 by $\frac{5}{6}$ of $\frac{7}{10}$.

$1 \times 2 \times 18 = 36$
$7 \times 3 \times 1 = 21$

$5 \times 7 = 35$
$6 \times 10 = 60$

$\frac{36 \times 60}{21 \times 35} = \frac{2160}{735} = 2 \cdot \frac{90}{735}$

Rule of Three in Vulgar Fractions.

This Rule in principal does not vary from the rule of Simple Proportion. But as fractions sometimes occur in the prices of articles which cannot be rejected in proportional calculations, a few illustrative exercises are subjoined.

Rule - State the question as in simple Proportion. Reduce the mixed numbers to simple fractions, multiply the second and third terms together, and divide by the first.

If 1 anker of brandy cost $21\frac{5}{8}$ £, what will 1 hogshed cost?

$$21\frac{5}{8} = \frac{173}{8}$$

As $\frac{1}{10}$ $\frac{173}{8}$ $\frac{(0.3)}{1}$

$$\frac{1}{10} \times \frac{173}{8} \times \frac{63}{1} = \frac{10899}{80}$$ Ans £ 130 . 4 . 9

A grocer purchased $5\frac{3}{8}$ puncheons of prunes for £ $5\frac{1}{4}$, what must be given for $25\frac{1}{4}$ at the same rate?

$$5\frac{3}{8} = \frac{43}{8}$$

$$25\frac{1}{4} = \frac{101}{4}$$

As $\frac{8}{43}$ $\frac{514}{1}$ $\frac{101}{4}$

$$\frac{8}{43} \times \frac{514}{1} \times \frac{101}{4} = \frac{415312}{172}$$ Ans £ 2414 . 12 . $1\frac{5}{43}$

Division of Decimals

Decimal Fractions

are so called because the fractions are always tenths hundredths thousandths &c They differ from Vulgar Fractions in this that the denominator is not written instead of writing $\frac{4}{10}$ or $\frac{15}{100}$ the fractions would be written decimally 4 or 15. The point before it is used to distinguish it from whole numbers.

A decimal fraction is reduced to a vulgar fraction by placing a nought under each figure and prefixing the number 1. Thus .425 with 3 ciphers and 1 under it would be $\frac{425}{1000}$.

Each cipher placed before a decimal decreases its value ten fold Thus 4 is $\frac{4}{10}$ but .04 is $\frac{4}{100}$, .004 is $\frac{4}{1000}$. Ciphers placed after it do not alter its value: .4 is equal to .40 or .400, because $\frac{4}{10}$ is equal to $\frac{40}{100}$ or $\frac{400}{1000}$.

Addition of Decimals.

Rule. Arrange the numbers to be added so that all the points are in a straight line. Add up as in simple numbers.

Add 3.15 2.081 .4085. 30.57 .0084 together

3.15
2.081
.4085
30.57
.0084
36.3179

Add 23. 1817 5.5. 84021. .00010. 38.472. 3.815.

23.
1817
5.5
84021.
.00010
38.472
3.815
84091.96980

Rule of Three in Vulgar Fractions.

Subtraction of Decimals

Rule.- Arange the numbers as in Addition, and subtract as in simple numbers, taking to insert the point.

From 81.5 take 41.082.

81.500
41.082
40.418

From 365. take 3.050.

365.000
3.650
361.350

From 425. take .425.

425.000
.425
424.575

From 7.008 take .0008.

7.0080
.0008
7.0072

Multiplication of Decimals

Rule Arange the numbers and proceed as in simple numbers. Count the number of decimals in both the multiplicand and multiplier, and point off so many figures at the right end the product, if there be not figures enough in the product place ciphers to the left, and then prefix the point.

Multiply 3.081 by 4.12

3.081
4.12
30972
12324
12.09372

Multiply 14.02 by 90.09

14.02
90.09
12618
12618
1263.0618

Multiply 27.004 by 36.02

27.004
36.02
54008
162024
81012
972.08408

Multiply 1008. by .1008

1008.
.1008
8064
1008
101.6064

Division of Decimals

Rule - Divide as in whole numbers. Mark off in the quotient as many decimal places as the dividend has more than the divisor. If the divisor has more decimal places than the dividend, add ciphers to the right hand of the dividend.

When the divisor and dividend have an equal number of decimals, the quotient is a whole number.

The quotient must always have as many decimal places as the dividend has more than the divisor.

The first figure in the quotient is always of the same relative value as that figure which stands over its unit's place in subtracting.

Divide 4·84 by 1·35

```
1·35) 4·84.00 ( 3·585
      4.05
       .790
       675
       1150
       1080
        700
        675
         25
```

Divide 5·42 by 1·25

```
1·25) 5·42.000 ( 4·336
      500
       420
       375
        450
        375
         750
         750
```

Reduction of Decimals

Case 1 – To reduce a decimal to a vulgar fraction
Rule – Place a cipher under each decimal & prefix a unit; thus the vulgar fraction eaqual to the decimal ·584 is $\frac{584}{1000}$.

What vulgar fractins are eaqual to the decimals
·5 ·284 ·001 ·08437 ·00009 ?

·5	·284	·001	·08437	·00009	·01	·010
Ans 10	1000	1000	100000	100000	100	1000.

Case 2. – To reduce a vulgar fraction to a decimal.
Rule – Divide the numerator by the denominator, add ciphers to any extent; the quotient is the decimal required.

Reduce $\frac{9}{12}$ to a decimal

12 ÷ 900 (·75
84
60
60

Reduce $\frac{1}{425}$ to a decimal

425 ÷ 10000.00 (·002352 9
850
1500
1275
2250
2125
1250
850
4000
3825

Reduce $\frac{15}{16}$ to a decimal

16 ÷ 150090 (·9375
144
60
48
120
112
80
80

Reduce $\frac{27}{400}$ to a decimal

400 ÷ 270000 (·0675
2400
3000
2800
2000
2000

Case 3. To reduce money, weights or measures to equivalent decimals.

Rule. Divide by as many of the lower denominations as make one of the higher annexing ciphers at will. If there be several denominations, proceed in the same manner with each, beginning with the lowest denomination.

Reduce 17s to a decimal.

20)1700(.85
100
100
100
...

Reduce 5 cwt 2 qrs 10 lbs to the decimal of a ton.

28)10.000
4)2.357
20)5.589
2794+

Reduce 11s 10½d to a decimal.

4)20
12)10.5000
20)11.8750
.59375

Reduce 3 lbs 5 ozs to the decimal of a cwt

16)5.00000
28)3.31250
4).11830
2957+

Case 4. To find the value of a decimal.

Rule. Multiply the decimal by the number of the next lower denomination which is equal to one of its present denomination. Cut off as many places for decimals as the multiplicand has.

What is the value of .7805 of a mile

.7805
8
6.2920
40
11.0800
5½
3.4000
3400
.7400
3
2.2200
12
2.6400
3
1.9200

What is the value of .375 of a ton

.375
20
7.500
4
2.000

What is value of .9 of a shilling.

9/12
10.8
4
3.2
¼

Rule of Three in Decimals.

This rule is useful when the price of articles which stand in relative proportion have their fractional parts expressed decimally

Rule - State the question as in simple Proportion. Reduce the first and second terms to decimals of the same name. Multiply the second and third terms together, and divide by the first term.

How many pounds of Tea can I buy for £30 when 2 lbs cost 11·125 s?

s	lbs	£
As 11·125	: 2	:: 30

20
600

2
11·125) 12 00·000000 (107·805 lbs
11·125
·87500
77875
·90250
89000
·72500
66750
·57500
55025
·18750

If 2·825 qrs of coffee cost 9·875 £ what is the value of 1 cwt?

qrs	£	cwt
As 2·825	: 9·875	:: 1

4 £
2·825) 39·500·00 (13·98 £
2·825
·11250
8475
·27750
25425
·23250
22600
·0650

If 6.5 ounces of Iron cables be sold for 1.95 £ what must be given for 3.7.5 lbs at the same rate?

ounces £ lbs
As 6.5 : 1.95 :: 3.7.5
12
4500
195
22500
40500
4500
6.5) 87.500 (13.5 £
65
227
195
325
325
00

Mensuration

This rule teaches how to find the number of feet in any thing either solid or superficial and to charge for it accordingly.

To find the superficial contents multiply the length by the breadth, for a solid cube or a parellelopipedon multiply the length by the breadth, and that product by the depth.

The area of a figure is the space within the bounds of the surface. Thus the area of a circle is the space contained within the circumference.

Glazing and Masons' Flat Work.

This is measured and charged by the square foot.

What is the worth of 10 squares of glass work, each measuring 4 ft 10 in long and 2 ft 11 in broad at 1.s 6 d per foot?

ft	in
4	10
2	11
9	8
4	5 2
14	1 2

4 × 4 = 16

56	4	8	
		4	
225	0	8	
18			
1800			
225			
4050			
		9	
0	12		
		0	3/4
2	1/4		
		0	1/4
12	÷ 4050		

20 ÷ 338 · 4

£10 · 18 · 4

s	d
1	6
12	
18	

5	1/2

What will a piece of Glass that is 7 ft 4 in long 5 ft 6 in broad come to at 6 s per foot?

ft	in
7	4
5	6
36	8
3	8 0
40	4 0
	6
240	
	2
242	

4	1/3

20 ÷ 242

£12 · 2

By Solid Measure

What is the value of a block of marble 12 feet long 10 feet broad and 7 feet thick at 14 s per foot?

III Italy.

They keep their accounts at Genoa and Leghorn, in livres and deniers, exchange by the piece of eight or dollars = 4s 6d at par.

12 deniers make 1 sol.
20 sols . . . . . 1 livre
5 livres . . . . . 1 piece of eight at Genoa
6 livres . . . . . 1 piece of eight at Leghorn

N. B. The exchange at Florence is by ducatoons, the exchange at Venice by ducats.

6 solidi make 1 gross
24 gross . . . . 1 ducat.

Rule: The same as before

A factor has sold goods at Florence for 250 ducatoons, at 54 each, what is the value in pounds sterling?

ducat d ducats
As 1 : 54 :: 250

54

1000

1250

12) 13500

20) 1125 . 0

£ 56 . 5 . 0

A gentleman traveling would exchange £ 60 . 14 . 7 sterling for Venice ducats at 4s 5d each, how many must he receive?

s d ducat £ s d
As 4 . 5 : 1 :: 60 . 14 . 7

12 20

53 1214

12

53) 14576 (275
106
397
371
265

205

IV Portugal.

They keep their accounts at Oporto and Lisbon in reas and exchange on the milreá = 6 s 8 ½ d at par.

1000 reas make 1 milreá.

Rule - The same as with France.

A gentleman being desirous to remit to his correspondent in London 2750 milreas, and ~~183~~ exchange at 6 s 5 d. per milreá, how much sterling will he be the o creditor for in London?

milreas	s	d	milreas
As 1	: 6	5	:: 2750
12			77
77			19250
			19250
			211750
			17645.10
			£ 882.5.10

A merchant at Oporto remits to London 4366 milreas and 183 reas, at 5 s 5 d ⅝ exchange per milreá, how much sterling must be paid in London for this remittance?

s	d
5	5 ⅝
12	
65	
8	
525	
8	

milreas	reas.
4366	183
	1000
4366183	

As $\frac{1000}{1}$: $\frac{525}{8}$ :: $\frac{4366183}{1}$

As $\frac{1}{1000} \times \frac{525}{8} \times \frac{4366183}{1} = \frac{2292246075}{8000}$

£	s	d
Ans 1193	17	6 ¾ . 075

Examples

2) 8 3 6 9 7 5 8 4
4 1 8 4 8 7 9 2

3) 2 8 7 0 8 4 2 8 7
· 9 5 6 9 4 7 6 2 $\frac{1}{3}$

4) 8 4 5 7 8 6 2 9 5
2 1 4 4 6 5 7 3 $\frac{3}{4}$

5) 7 2 8 4 3 8 4 7 5
1 4 5 6 8 7 6 9 5

6) 4 8 0 0 0 7 0 2 4
· 8 0 0 1 1 7 0 $\frac{4}{6}$

7) 3 2 4 0 3 2 7 6 4
· 4 6 2 9 0 3 9 4 $\frac{6}{7}$

8) 7 3 2 0 0 0 7 4 5
· 9 1 5 0 6 0 9 3 $\frac{1}{8}$

9) 3 7 6 2 0 6 9 5
· 4 1 8 0 0 7 7 $\frac{2}{9}$

10) 6 2 3 4 0 0 0 3 5
· 6 2 3 4 0 0 0 3 $\frac{5}{10}$

12) 5 8 4 2 7 9 3 8 4
· 4 8 6 8 9 9 4 8 $\frac{8}{12}$

11) 4 0 0 0 6 0 0 0 9
· 3 6 3 6 9 0 9 1 $\frac{8}{11}$

12) 4 5 7 2 9 0 8 4 3
· 3 8 1 0 8 0 7 0 $\frac{3}{12}$

5) 3 5 0 4 1 9 5 4 0 2
· 7 0 0 8 3 9 0 8 0 $\frac{2}{5}$

7) 1 7 0 0 7 6 5 8 9 9
· 2 4 2 9 6 6 5 5 7

2) 3 1 4 0 6 4 8 9
· 5 2 3 4 4 1 4 $\frac{5}{6}$

8) 5 0 4 9 3 6 9 5
· 6 3 1 7 1 1 $\frac{7}{8}$

4) 1 0 0 5 6 4 8 9
· 2 5 1 4 1 2 2 $\frac{1}{4}$

9) 3 7 6 8 2 0 6 9 5
· 4 1 8 6 8 9 6 6 $\frac{7}{9}$

Long Division

24) 2873896 (119745
24
47
24
233
216
178
168
109
96
136
120
16

Proof
119745
24
478996
2394980
2873896.

24) 10007141 (416964
96
40
24
167
144
231
216
154
144
101
96
5

Proof
416964
24
1667856
8339928
10007141.

25) 4873865

25.....

237

225

.123

100

.238

225

.136

125

.115

100

.15

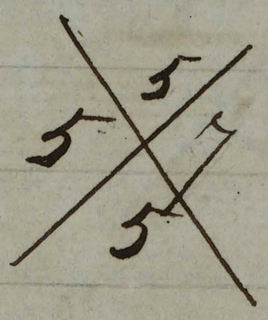
(194954

25

974785

3899081

4873865 Proof.



45) 13876584 . . .

135.....

.376

360

.165

135

.308

270

.387

360

.27

(302367.

45

1544867

12334721

13876588 Proof.

(168) 39687185 . . . (236233
336 168
608 1889865
504 1411402
1047 236233
1008 39687185 Proof.
391
336
558
504
545
504
41

(253) 181738905 . . . . (71833
1771 253
463 215505
253 359169
2108 1436677
2024 181738895 Proof.
849
759
905
759
146

(785) 10008352 . . . . . (12749
785 785
2158 631752
1570 1420000
5883 892476
5495 10008352 Proof
3885
3140
7452
7065
387

1560) 1496371836 (959212
14040 1560
9237 5755520
7800 4796060
14371 9592121
14040 14963720
3318 1116
3120 14963718 Proof.
1983
1560
4236
3120
1116

3 3 3 1

2988) 200078193[4] (669605
17928 2988
20798 5355684
17928 5355684
28701 6026445
26892 13392104
18099 2000799740
17928 2194
11134 20000781934 Proof
14940
2194

4799) 900071830 . . . (187554

4799.....

42017

38392

36251

33593

26588

23995

25933

22995

19385

19196

1890

6 / 3
2 / 6
Proof

17896) 1385904682 . . . (77609

1250833 . . .

1359774

1250833

108916

107214

17028 2

16082 1

946 1
Proof

93444) 18193775 26 . . . . (5440.

16772 0 . . .

1477175

1337776

133992

133776

2166
6 / 4
9 / 6
Proof

Questions for Exercise

A Ship sailed 842 miles in a week what is that per day?

7) 842 (2
120 7/7

If a man have to walk 12 miles in 3 hours how many miles is that per hour?

3) 12
4

The Inhabitants of London are Carried by the daily Revolution of the Earth 15120 miles an hour what is that per minute.

60) 15120
252

The wheel of a coach turned round in 7 hours 53130 times in an hour, how many times was that per hour how many times in a quarter of an hour, and how many times in a minute?

If a vessil contaund 120 gallons of water how long would it take to empty it by a pipe which discharges 8 gallons an hour?

8) 120
15

What number is that which multiplied by 217 will make the product 45228543?

217) 45228543 (208647
434
1885
1736
1497
1302
1954
1519
434

Answers. 7590. 1897 — 2 rem
— 126 — 7/8 rem

Addition of Money Weights and Measures.

Rule, Add the first row or denomination together, as is integers, then divide the sum by as many of the same denomination as makes one of the next greater, setting down the remainder under the row added, and carry the quotient to the next superior denomination, continuing the same to the last, which add as in simple Addition.

Money

£	s	d
485	16	10 ½
46	14	5 ¼
32	10	9 ¼
84	19	11 ½
672	14	5
532	10	6 ¼
734	18	9 ½
1765	17	10 ¼
37	14	6 ½
28	18	10 ¼
3442	17	0 ¼
2957	0	1 ¾
3442	17	0 ¼

£	s	d
4532	19	11 ¾
846	18	10 ½
5434	16	4 –
1	0	2 ½
2	6	11 ¼
78	15	0 –
356	18	9 ½
8647	11	2 ¼
690	18	5 ½
546	13	7 –
21138	19	4 ½
16605	19	4 ¾
21138	19	4 ¼

lbs.	Oz.	dwts	grs
456.	10.	18	21
732	11	7	10
9	10	14	18
86	0	3	1
394	10	5	4
126	8	17	23
899	9	14	20
654	10	7	14
42	3	16	14
3404	3	6	10
2947	4	7	13
3404	3	6	10

lbs.	3.	3.	9
4732	10	6	2
863	9	7	1
56	11	4	0
23	9	7	2
465	8	6	2
9731	11	6	1
498	0	4	2
14	3	6	0
16387	7	1	1
11654	8	2	2
16387	7	1	1

Alligation Alternate

Is the method of finding what quantity of any number of simples, whose rates are given, will compose a mixture of a given rate, so that it is the reverse of Alligation Medial and may be proved by it.

Rule. 1 Write the rates of the simples in a column under each other.

2 Connect or link with a continued line the rates of each simples which is less than that of the compound, with one or any number of the less.

3 Write the difference between the mixture rate and that of each of the simples opposite the rates with which they are linked.

4 Then if only one difference stand against any rate, it will be the quantity belonging to that rate but if there be several, their sum will be the quantity.

A grocer would mix sugar at 4d. 6d. and 10d. per ℔, so as to sell the compound for 8d. per ℔. What quantity of each must he take?

8d.

8d { 4 — 2
     6 — 2
     10 — 4

℔	d.		d.
2	at 4	=	8
2	at 6	=	12
6	at 10	=	60
10			10)80
			8d

I desire to know how much tea at 16s. 14s. 9s. and 8s per ℔ will compose a mixture worth 10s per ℔?

10s { 16 — 1
      14 — 2
      9 — 6
      8 — 4

℔	s		s
1	at 16	=	16
2	at 14	=	28
6	at 9	=	54
4	at 8	=	32
13			13)130
			10s

Alternation Partial

When the prices of all the samples, the quantity of but one of them and the mean rate are given to find the several quantities of the rest in proportion to that given.

Rule — Take the difference between each price and the mean rate as before. Then,

As the difference of that sample whose quantity is given is to the rest of the differences severally so is the quantity given to the several quantities required.

Alternation Total

In which the price of each sample, the quantity to be compounded, and the mean rate are given to find the proportion of each sort which will make the required quantity

Rule Take the difference between each price, and the mean rate as before. Then,
As the sum of the difference: is to each particular difference:: so is the quantity given: to the quantity required.

A vintner had 4 sorts of wine, white wine at 4s per gallon, Flemish at 5s per gallon, Malaga at 8s per gallon and Canary at 10s per gallon, would make a mixture of 60 gallons, to be worth 5s per gal, What quantity of each must be take?

s
4
5 { 6
8
10

5+3+1=9
1
1
1
12

As 12 — 9 — 60 gal

60
12) 540 (45
48
60
60
0

As 12 — 1 — 60 gal

60
12) 60
5

As 12 — 1 — 60 gal

60
12) 60
5

As 12 — 1 — 60 gal

60
12) 60
5

A Silversmith hath 4 sorts of gold, viz. of 24 Carets fine of 22, 20, and 15 carets fine, would mix as much of each sort so as to have 42 oz of 17 Carets fine. How much must he take?

Cts
Cart. 17 { 24 — 2
22 — 2
20 — 2
15 — 7+5+3 = 15
21

Cts Cts Cts
As 21 — 2 — 42

2
21) 84 (4
84

Cts
As 21 — 2 — 42

2
21) 84 (4
84

Cts
As 21 — 2 — 42

2
21) 84 (4
84

Cts
As 21 — 15 — 42
15
210
42
21) 630 (30
63
0

Position or The Rule of False

Is a rule that by false or supposed numbers, taken at pleasure discovers the true ones required. It is divided into two parts Single and Double.

Single Position

Is by using one supposed number, and working with it as the true one, you find the real number required by the following.

Rule. - As the total of the errors: is to the true total: so is the supposed number: to the true one required.

Proof Add the several parts of the sum together, and if it agrees with the sum, it is right.

A person having about him a certain number of Portugeal pieces about him, said if the third fourth and sixth of them were added together, they would make 54. I desire to know how many he had?

suppose he had 48
the third 16
fourth 12
sixth 8
36 : 54 :: 48

48

432
216

36) 2592 (72
252

72
72

72
18
15
12
9
54 Proof.

A gentleman bought a chaise, horse and harness for £60 the horse came to twice the price of the harness, and the chaise to twice the price of the horse and harness, What did he give for each?

£
14
28
84
---
120 : 60 :: 14

14

240
00
---
120) 840 (£. s. d.
750 6 . 13 . 4

90
84

20
---
120) 1080 (9
120

420
378

42
12
---
120) 504 (d.
504 4

	£	s	d
The Harness	6	13	4
			2
" Horse	13	6	8
	6	13	4
			2
" Chaise	£ 40	0	0

Double Position.

By making use of two supposed numbers and of both prove false (as it generally happens) they are with their errors, to be thus ordained.

Rule. - I place each error against its respective position.

2 Multiply by them cross ways.

3 If the errors are alike that is both greater or both less than the given number, take their difference for a divisor, and the difference for their product for a dividend. But if unlike, take their sum for a divisor, and the sum of their product for a dividend, the quotient will be the answer.

A gentleman bought a house with a garden, and a house in the stable. for £500 now he paid 4 times the price of the house for the garden and 5 times the price of the garden for the house. What was the value of the house, house and garden?

house 50
garden 200
house 1000
1250 too much by 750

house 30
garden 120
House 600
750 too much by 250

50 × 750
30 × 250
750 22500 12500
250 12500
500) 10000 (£20
1000 4
. . . . 0 80
5
400

£
20 house
80 garden
400 house
£500 Proof

A gentleman going into a garden meets with some ladies, and says good morning to you 10 fair maids! Sir you are mistaken, answered one of them, we are not 10 but if we were twice as many more as we are, we should be as may above 10 as we are now under. How many were they!

4 3

2 2

8 too little by 2 6 too little by 4

2 × 4 = 16

4 3 = 5

2) 10

5 Ans

4

2

2

Exchange.

Is receiving money on one country for the same value paid in another.

The par of Exchange is always fixed and certain, it being the intrinsic value of foreign money, compared with sterling, but the Course of Exchange rises and falls upon various occasions

I France.

They keep their accounts at Pris. Lyons, and Rouen, in livres sols and deniers, and exchange by the crown = 4 s 6 d at par.

12 deniers make 1 sol

20 sols ..... 1 livre

3 livres ..... 1 crown

To change French into Sterling

Rule- As 1 crown : is to the given rate :: so is the French sum to the sterling required.

To change Sterling into French

If a bankrupt's estate pays 7 s 9 d. in the pound what is paid upon a debt of £ 1250?

£	s	d	£
If 1	: 7	9	:: 1250
20	12		20
20	93		25000
			93
			75000
			225000
20	2325000		
12	116254		
20	9687	6	
£	484	7 s	6 d.

If a gentleman spends 19 s. 6 d. per day, and lays by £ 150 at the years end, what is his yearly income?

dys	s	d	day
If 1	. . 19	6	: : 365
	12		234
234			1460
			1095
			730
12	85410		
20	7117	6	
	355	17	6
	150	0	0
£	505	17 s.	6 d.

Tare and Tret

Tare is an allowance made by merchants to buyers for the weight of packages containing the goods sold
Tret is an allowance of 4 lbs in 104 lbs. for waste, dust, &c.
Cloff is an allowance of 2 lbs. for every 3 cwt. for waste dust &c to the retailer.
Gross Weight is the whole weight, including packages &c
Nett Weight is when all allowances are deducted.
Suttle is when part of the allowance is taken from the gross

When the tare is so much on the whole weight, to find the nett weight

Rule.—Subtract the tare from the gross weight and the remainder is the nett weight

When the tare is so much per box, bag &c

Rule.—Multiply the tare by the number of packages, and subtract the product from the gross weight, the remainder is the nett weight.

Gross weight of 10 boxes, 56 cwt 1 qrs tare per box 24 lbs?

cwt	qr	lbs
0	0	24
		10
2	0	16

cwt	qr	lbs
56	1	0
		10
562	2	0
	2	16
560	1	12

Gross weight of 25 hhds. 18 cwts. 3 qrs 7 lbs. each, tare per hhd 1 cwt 7½ lbs?

cwt	qr	lbs	oz	
1	0	7	8	× 25
				5 × 5
5	1	9	8	
				5
26	2	19	8	

cwt	qr	lbs	
18	3	7	× 25
			5 × 5
94	0	7	
			5
470	1	7	0
		26	2 19 8
443	2	15½	

Gross weight of 19 bags, 12 cwt. 1 qr. 4 lbs. each tare per bag 15 lbs, 8 lbs allowed?

cwt	qr	lbs	
0	0	15	× 19
			9 × 2
1	0	23	
			2
2	1	18	
		0	0 15
2	2	5	

cwt	qr	lbs	
12	1	4	× 19
			9 × 2
110	2	8	
			2
221	0	16	
		12	1 4
233	1	20	
			2 2 5
230	3	15	
		8	3 14
222	0	1	

÷ 20

7 butts each 12 cwt, tare 2 qrs per butt net allowed?

cwt	qr	lbs	
12	0	0	
			7
84	0	0	
		3	2 0
80	2	0	
		3	0 10 ¾
77	1	17	¼

cwt	qr	lbs	
0	2	0	
			7
3	2	0	

÷ 20

Practice.

Is a contraction of the rule of three Direct, when the first term happens to be an unit, or one, and has its name from its frequent use in business.

Case 1

When the price is an aliquot, or even part of a shilling Rule. Divide the given number and the part, and the quotent is the answer in shillings; what remains is to be reduced as in Compound Division

1095 yards at 3 d per yd.

d		yards
3	¼	1095
20		273·9
£		13·13·9

3746 yards at 4 d per yd.

d		yards
4	⅓	3740
20		1248·8
£		62·8·8

7590 yards at 2 d per yd.

d		yards
2	⅙	7590
20		1265·0
£		63·5·0

3203 yards at 1½ d per yd.

d		yards
1½	⅛	3203
20		400·4½
		20·0·4½

Case 2

When the price is pence, or pence and farthings and no even part of a shilling

Rule. Find the even parts for the price, and proceed as in Case 1. and the sum of the quotients is the answer.

2705 yards at 8 d per yd.

d		yards
0	½	2705
		1352·6
2	⅓	450·10
20		1843·4
£		92·3·4

3702 yards at 7 d per yd.

d		yds
6	½	3702
		1851
1	⅙	313·6
20		2164·6
£		109·14·6

Case 3

When the price is shillings or shillings and pence and an even part of a pound.

Rule. Divide the given quantity by the even part and the quotient is the answer in Pounds. If there be a remainder, reduce it as in Compound Division.

478 yards at 10 s per yard

s		
5	¼	478
	£	119 · 10 · 0

797½ yards at 2 · 6 d per yd.

s d		
2 · 6	⅛	797½
	£	99 · 13 · 9

397 yards at 3 · 4 d per yd.

s		
3 · 4	⅙	397
	£	66 · 3 · 4

159¼ yards at 1 · 8 d per yd.

s d		
1 · 8	1/12	159¼
		13 · 5 · 5

Case 4

When the price is shillings or shillings & pence which makes no even part of a pound

Rule.—Find the even parts for the price, & divide as in Case 3. or multiply the given quantity by the shillings, & take the even parts of shillings for the pence, as in Case 2.

8172 yards at 15 s per yd.

8172
15
40860
8172
20)122580
£6129.

3691 yards at 19 s per yd.

3691
19
33219
3691
20)70129
£3506 · 9

4765 yards at 11 · 8 d.

d		
6	½	4765
		11
2	⅓	52415
		2382 · 6
		794 · 2
20		55591 · 8
£		2779 · 11 · 8

3718 yards at 18 · 4 d.

d		
4	⅓	3718.
		18
		29744
		3718
		1239 · 4
20		68163 · 4
£		3408 · 3 · 4

Case 5

When the price is an even number of shillings

Rule.- Multiply the quantity by half the shillings, doubling the first (or eight hand) figure of the product for shillings, the rest are pounds.

347 yards at 4 s

347

2 half shillings

£ 69·8

246 yards at 10 s

246

5

£ 123·0

589¼ yards at 8 s

589

4

235·12

2

235·14

638 yards at 6 s

638

3 half shillings

£ 191·8

523 yards at 14 s

523

7

£ 366·2

324¾ yards at 12 s

324

6

194·14

3

194·17

Case 6

When the price is any amount of shillings which is an aliquot part of a pound sterling.

Rule.- Divide by the aliquot part.

8376 yards at 3·4d.

3·4 | 1/5 | 8376

£ | 1396·0

9942 yards at 6·8d

6·8 | 1/3 | 9942

£ | 3314·0

9541 yards at 1·4d

1·4 | 1/15 | 9541

£ | 530·1·4

5425 yards at 2·6d

2·6 | 1/8 | 5425

£ | 678·2·6

3344 yards at 1·3d

1·3 | 1/16 | 3344

£ | 209·0

3847 yards at 1·8d

1·8 | 1/12 | 3847

£ | 320·11·8

Case 7

When the price is shillings and pence which are not aliquot parts of a pound.

Rule.– Multiply by the shilling, take parts for the pence and farthings, as in Case 2, add them together and divide by 20.

3143 yards at 7½ d.

6	½	3143
1½	¼	157·1·6
		392·10½
20		5107·4½
£		255·7·4½

1505 yards at 9s 7½ d.

6	½	1505
		9
		14085
1½	¼	782·6
		195·7½
20		15063·1½
£		753·3·1½

6885 yards at 10s 7½ d.

6	½	6885
		10
		68850
1½	¼	3442·6
		860·7½
20		672802·1½
£		33640·2·1½

9654 yards at 11s 4 d.

4	⅓	9654
		11
		106194
		3218
20		109412
£		5470·12

Case 8

When the price is pounds, shillings, pence and farthings

Rule.– Multiply by the pounds, and take aliquot parts for the rest; or multiply by the whole number of shillings contained in the pounds and shillings, and take parts for the pence.

9834 yards at £1·18s 9d.

		£	s	
5	½	9834	1	18
		38	20	
		8672	38	
		502		
3	½	4917		
		2458·6		
20		38106·7·6		
£		19053·7·6		

2437 yds at £1·3s 3¼ d.

		£	s	
3	¼	2437	1	3
		23	20	
		7311	23	
		4874		
¼	¼	609·3		
		152·4¾		
20		56812·7¾		
		2840·12·7¾		

4229 yds at £1·15s 9¾d

			£	s	d
6	½		4229 ·	1 ·	15
			35	20	
			21145	35	
			12687		
3	½		2114 ·	6	
¾	¾		1057 ·	3	
			352 ·	5	
20			151539 ·	2	
		£	7570 ·	19 ·	2

9870 yds at £1·3s 4d.

			£	s
4	⅓		9870 ·	1 · 3
			23	20
			29028	23
			19752	
			3292	
20			230440	
£			11522 ·	0

Case 9

When the quantity and the price are both of several denominations.

Rule.- Multiply the price by the number on the quantity of the highest name, and take parts for the rest.

2 cwts 1 qr 3 lbs at £1·10s 0¼d per cwt.

		£	s	d
1	¼	1 ·	10 ·	0 ¼
		2		
		3 ·	1 ·	0 ½
2	1/14	0 ·	7 ·	7 ½
1	½	0 ·	0 ·	5 ½
		0 ·	0 ·	3 ¼
£		3 ·	9 ·	5 ¾

4 cwt 3 qrs 15 lbs at £5· 2s 6d per cwt.

		£	s	d
2	½	5 ·	2 ·	6
		4		
		20 ·	10 ·	0
1	½	2 ·	11 ·	3
14	½	1 ·	5 ·	7 ½
1	1/14	0 ·	12 ·	9 ¾
		0 ·	0 ·	10 ¾
£		25 ·	0 ·	7 ·

17 cwt 3 qrs 14 lbs at £3·17s 6d per cwt.

		£	s	d
2	½	3 ·	17 ·	6 × 17
				8 × 2 + 1 =
		31 ·	0 ·	0
			2	
		62 ·	0 ·	0
		3 ·	17 ·	0
		65 ·	17 ·	6
1	½	1 ·	18 ·	9
14	½	0 ·	19 ·	4 ½
		0 ·	9 ·	8 ¼
£		69 ·	5 ·	3 ¾

1 cwt. 2 qrs 7 lbs at £3· 1s 1½d per cwt.

		£	s	d
2	½	3 ·	1 ·	1 ½
7	⅛	1 ·	10 ·	5 ¾
		0 ·	3 ·	9 ¾
		4 ·	15 ·	0

Simple Interest.

Interest is money paid for the use of money.
The principal is the money lent.
The rate per cent is the sum paid for the loan of £100
The amount is the principal and interest added together.
Case 1 — To find the interest for years
Rule — Multiply the principal by the rate per cent, divide the product by 100, the quotient is the interest for 1 year multiply by the given number of years.

What is the interest of £764 for 4 years at 5 per cent per annum?

£
764
5
100 ÷ 3820
38=20
20
100 ÷ 400
38·4
4
£152·10s

What is the interest of £276·10s for 3½ years at 4 per cent per annum?

£ s
276·10
4
100 ÷ 1106·0
20
100 ÷ 120
1=20
12
100 ÷ 240
2=40
4
100 ÷ 160
1·60

£ s d
½ ÷ 11·1·2¼
3½
33·3·6¾
5·10·7
£38·14·1¾

What is the interest of £619 · 17s 6d for 7 ½ years at 4 per cent per annum?

£	s	d
619	17	6
		4
100 ÷	2479	10 · 0
		20
100 ÷	1590	
	15 - 90	
		12
100 ÷	1080	
	10 - 80	
		4
100 ÷	320	
	3 -	

£	s	d
½ ÷	24 · 15 ·	10 ¾
		7
	173 · 11 ·	3 ¼
	12 · 7 ·	11 ¼
£	185 · 19 ·	2 ½

What is the amount of £2743 · 19s 6d for 2 ½ years at 6 per cent per annum?

£	s	d
2743	19	6
		6
100 ÷	16453	17 · 0
		20
100 ÷	1277	
	12 - 77	
		12
100 ÷	924	
	9 - 24	
		4
	90	

£	s	d
½ ÷	164 · 12 ·	9 ¼
		2
	329 · 5 ·	6 ½
	82 · 6 ·	4
	411 · 11 ·	10 ½
	2743 · 19 ·	0
£	3155 · 11 ·	4 ½

Case 2. To find the interest for weeks and days.

Rule. If they form an aliquot part of a year, divide the interest of one year by that aliquot part. If they do not form an aliquot part, reduce the weeks and days to days, and say as 365 days are to the number of days, so is 1 years interest to the interest required.

What is the interest of £100 for 27 weeks 3 day at 5 per cent per annum?

£ 100 5

weeks day 27 · 3 7

As 365 : 5,00 :: 192

192

365 ÷ 900 (£2 · 12s 7d.

730

230

20

365 ÷ 4600 (· 12

4380

· 220

12

365 ÷ 2640 (7

2555

· · 85

Find the interest of £250 for 26 weeks 5 days at 4 per cent per annum?

£ 250 4

weeks dys 26 · 5 7

dys

As 365 : 10,00 :: 187

187

70

80

10

365 ÷ 1870 (£5 · 2s 5½d.

1825

45

20

365 ÷ 900 (2s

730

170

170
12
365 ÷ 2040 (5d.
1825
215
4
365 ÷ 860 (½
730
130

What is the interest of £1000 at 4½ per cent per annum, for 7 years 21 weeks 3 days?

£
½ ÷ 1000
4½
4000
500
4500
7
315
18
£333·9s 10¼d.

£		weeks	dys
As 365 : 45 ::	150	21	3
			7
	150		
	2250		
	45		
365 ÷ 6750 (	18		
	6570		
	180		
	20		
365 ÷ 3600 (	9		
	3285		
	315		
	12		
365 ÷ 3780 (	10		
	3650		
	130		
	4		
365 ÷ 520 (	¼		
	365		
	155		

Commission.

Is an allowance to a factor, broker, or agent on account of goods bought or sold for his employer.

Rule. Divide the sum bought or sold by 100, which gives 1 per cent, multiply or divide this sum according to the rate allowed, as in the rule of Practice.

What is the commission on £2814·10s. at 10s per cent?

£ s

100 ÷ 2814 · 10

28=14·10

20

100 ÷ 290

2=90

12

100 ÷ 1080

10=80

4

100 ÷ 320

3=

10	½	28 · 2 · 10 ¾
	£	14 · 1 · 5 ½

What do I pay to a broker at ⅜ per cent. for £11,250?

£

100 ÷ 11250

112=50

20

100 ÷ 1000

10=

		£ s d
2/8	¼	112 · 10 · 0
1/8	½	28 · 2 · 6
		14 · 1 · 3
	£	42 · 3 · 9

At £3 · 4 s 2 d per cent what is the commisson for £584 10 s?

	£	s
100 ÷	5,8,4	10
	5 = 84	· 10
		20
100 ÷	1690	
	16 = 90	
		12
100 ÷	10,80	
	10 = 80	
		4
100 ÷	320	
	3 =	

		£	s	d
4	1/5	5	· 16	· 10 3/4
			3	
		17	· 10	· 8 1/4
2	1/24	1	· 3	· 4 1/4
		0	· 0	· 11 3/4
£		18	15	· 0 1/4

At 5 ℔ commisson what must I pay for £327 15 s 4 d?

	£	s	d
100 ÷	327	· 15	· 4
	3 = 27	· 15	· 4
		20	
100 ÷	555		
	5 = 55		
		12	
100 ÷	664		
	6 = 64		
		4	
100 ÷	256		
	2		

		£	s	d
2	1/0	3	· 5	0 1/2
			5	
		16	· 7	· 8 1/2
		0	· 10	· 11
£		16	· 18	· 7 1/2

Insurance.

To find at a certain rate what sum must be paid for protection from loss by fire, or other accidents

Rule – Calculate as in Commission if there be no time given, If time be given, calculat as in Interest.

What is the insurance at 7s 6d on £4182·10s?

£	s	
100 ÷	4182·10	
	41=82·10	
	20	
100 ÷	1050	
	10=5=0	
	12	
100 ÷	0,00	
	0=	

£	s	d
		41·10·0
		8×2
		334·12·0
		2
		669·4·0
		41·10·0
		711·0·0
3	½	20·18·3
		10·9 1½
	20	742·7·10½
		37·2
		20
20 ÷		47
		2·7
		12
20 ÷		94
		4·14
		4
20 ÷		58
		½=

What is the insurance at 5s per cent on £8000?

£		
100 ÷	8000	
	80·00	

£		
5	¼	80
		20

Stocks

Are public funds. The value of a nominal £100 is sometimes above and sometimes below £100 to find its exact value is the object of this rule. If more, it is called above par. If less below par Par here therefore means £100.

Rule. Multiply by the rate per cent, and divide by 100, as in Simple Interest.

Transferring stocks, brokers charge $\frac{1}{8}$ per cent.

Value of £7000 East India stocks at 197 $\frac{3}{8}$ £ per cent?

		£
$\frac{2}{8}$	$\frac{1}{4}$	7000
		197
		49000
		63000
		7000
$\frac{1}{8}$	$\frac{1}{2}$	1750
		875

100 ÷ 13810 25 Ans £13810. 5s

13810 = 25

20

500

What is the value of £500 Bank stock at £215 per cent?

£
500
215
2500
500
1000
100 ÷ 107500
£1075

Rebate or Discount.

Is an allowance made upon the payment of a debt before it is due.

Case 1. To finde the discount and present value.

Rule. As £100, with its interest for the given time, is to the debt, so is that interest to the discount, which deducted from the debt, leaves the present value.

What is the present value of £320 due in 4 months allowing 6 per cent per annum?

100
6
4 1/3 600
100) 2
100

As 102 ---- 2 ---- 320

£
320
2
102 ÷ 640 (6
612
28
20
500 (5
510
50
12
600 (5
510
90
4
300 (3/4
300
54

£ s d
320 . 0 . 0 .
0 . 5 . 5 3/4
£313 . 14 . 6 . 1/4

What is the present value of £420 due in 9 months at 4½ per cent per annum?

6 ½ 4·10
3 ½ 2·5
1·2·6
3·7·6

100·0·0 £ s d £
103·7·6 — 3·7·6 — 420

20 20 810
2087 67 4200
12 12 3300
24810 810 340200 (£ 13
24810
92100
74480
24810 ÷ 17570
20
353400 (s 14
24810
105300
99240
6060
12
72720 (d 2
49020
23100
4
92400 (¾
74430
17970

£ s d
420·0·0
13·14 2¾
£400·5·9¼

Case 2.—When the amount, that is, the debt and interest, is given, to find the time.

Rule.—As the interest of the debt for a year is to the whole interest, so is one year to the time required.

In what time will £270 amount to £300 at 5 per cent?

270
5
100)1350
20
10000
£ s
As 13 · 10 — 1 — 300
20 270
270 30
20 years days
270)600(2 · 81
540
60
365
270)21900(81
2160
300
270
30

How long will £360 be in amounting to £500 at 3 per cent?

£
360
3
100)1080
20
10000
£ s
As. 10. 16 — 1 — 500
300
20 140
216

140
20
215) 2800 (years 12 · days 351
2592
208
365
1040
1248
524
215) 75920 (351
648
1112
1080
320
216
104

Case 3. — The amount and time being given, to find the rate per cent.

Rule. — As the debt is to £100, so is the interest for the given time to the interest of the same, which divided by the time gives the rate per cent.

At what rate per cent will £400 amount to £480 in 4 years?

£ £
As 400 — 100 — 480
400
80
100
400) 8000 ((4) 20
800 5 pr ct
0

At what rate per cent will £380 amount to £494 in 5 years?

£	£	£
As 380	— 100	— 494
		380
		114
		100
380)		11400 (5) 30
		1140 — 6 per ct
		0

At what rate per cent will £640 amount to £697 · 12 s in 3 years?

£	£	£ s
As 640	— 100	— 697 · 12
20		640 · 0
12800		57 · 12
		20
		1152
		100
12800)		115200 (3 / 9
		115200 — 3 per ct

Compound Interest.

Is interest on interest as well as upon principal

Rule — Find the interest for 1 year, which add to the principal, take that amount as the principal of the second year, find the interest as before, and continue to add each year's interest for the time given. Subtract the principal from the last amount, and the difference will be the Compound Interest.

What will be the compound interest for £025 for 2 ½ yrs at 3 per cent per annum?

£
025
3

1875
20

15,00

£ s
025 · 0
18 · 15
---
043 · 15
3

19,31 · 5
20

0,25
12

3,00

£ s d
043 · 15 · 0
19 · 0 · 3
---
063 · 1 · 3
3

19,89 · 3 · 9
20

17,83
12
---
100 5

£ s d
½ ÷ 19 · 17 · 10
9 · 18 · 11 half yr
063 · 1 · 3
---
073 · 0 · 2
025 · 0 · 0

£48 · 0 · 2

What will be the compound interest for £500 for 4 yrs at 5 per cent per annum?

£	s	d
500	0	0
25	0	0
525	0	0
26	5	0
551	5	0
27	11	3
578	10	3
28	18	9 3/4
607	15	0 3/4
500	0	0
£ 107	15	0 3/4

5
2500.0.0

£ s d
525.0.0
5
2625.0.0
20
500
£ s d
551.5.0
5
2755.5.0
20
11025
12
3100
£ s d
578.10.3
5
2894.1.3
20
18081
12
9.75
4
3100

Barter

In trade it frequently happens that one tradesman buys goods of another, and, instead of paying money for them, gives other goods in return: this is called barter. The rule therefore shows how much of any article at a certain price should be given for any quantity at a different price. Thus, if a person has a number of books to sell at 6d each, and he wants quills for them at 5s per hundred the rule tells him how many books he should give for the quills.

Rule. Find the worth of the given article either by the Rule of Three or Practice according to the nature of the question; and then, by one or the other of those rules find what quantity of the other article this sum will purchase.

How much chocolate at 4s. 6d per lb. must be given for 2 cwts 2 qrs 19 lbs of sugar at 8d per lb?

cwt qrs lbs
2 · 2 · 19
4
10
28
89
21
299
£

s d
4 · 6
12
54

2392 (44 · 4 · 11
210
232
210
10

lbs 3s ds
44 · 4 · 11

16
10
54) 250 (4
210
40
10
54) 640 (11 ds
54
100
54
46

What quantity of coals at 30s per ton must be given for 400 deal boards at 18d per dozen?

deal boards
400
18
3200
400

360) 7200 (tons 20
720
0

How many lbs of currant at 12d per lb must be given for 5 cwt 3 qrs 9 lbs of plums at 6d?

cwt qrs lbs
5 . 3 . 9
4
23
28
193
40
053
5

12) 3918 (lbs. 3s. 326 . 8
30
31
24
78
72
6
10

12) 90 (8s
90

A linen draper and cheesemonger barter, the cheesemonger has 40 cwt of cheese at 21 s 6 d per cwt and the linen draper has 10 pieces of Irish cloth at £3 · 15 s per piece, what is the difference in value?

s	d
21	6
12	
258	
40	
12) 10320	
20) 860	
43	

£	s
3	15
20	
75	
10	
450	
75	
20) 1200	
60	
43	
£ 17	

Profit and Loss.

This rule shows what is lost or gained in buying and selling goods

Rule.- Subtract the cost price from the selling price, and multiply the remainder by the total quantity.

Bought 70 yds of muslin at 11 s 8 d per yd. sold it at 14 s 2 d what was the gain upon the whole?

s	d
14	2
11	8
2	6

9 x 8 + 4 = 76

s	d
22	6
8	
9	0 · 0
10	0
£ 9	10 · 0 Gain

s	d
2	6
4	
10	0

Bought 205 pair of stockings at 15 d per pair sold the whole for 10 £ 5 s what was the loss?

pair
205
15
1025
205
12) 3075
20) 256 . 3
12 . 10 . 3
10 . 5 . 0
£ 2 . 11 . 3 loss

Bought 13 ¾ lbs of chocolate at 4 s 1 ½ d per lb, sold it at 4 s 9 d per lb, what was the gain?

£ s d
0 . 4 . 1 ½
12 × 11
2 . 9 . 0
11
27 . 4 . 6
1 . 0 . 7 ¼
28 . 5 . 1 ¼

£ s d
0 . 4 . 9
12
2 . 17 . 0
11
31 . 7 . 0
1 . 3 . 9
32 . 10 . 9
28 . 5 . 1 ¼
£ 4 . 5 . 7 ¾ gain

Of Gain Percent

Percent means per £100, therefore if you are required to find the gain or loss per cent. It means the gain or loss on laying out £100 To find which work by the Rule of Three.

A draper buys cloth at £ s 12 d per yard and sells it at £ s 16 ½ d, what is the gain per cent?

s d
£ · 10 ½

£ · 2 : £ ½ :: £ 1
100
20
2000
12
24000
£
1920000
12000
98) 2040000 (20) 2081 ½
190 173 · 5
800 £ 8 · 13 · 5 ½
784
160
96
02
4
98) 248 (½
190
52

A druggest buys gum at 5 s 9 d per lb, what must he sell it at per lb, to gain 20 per cent?

£ £
100 : 5 · 9 :: 120
12
69
120
1380
69
100) £ 280
12) £ 2 - 80
£ 0 · 10 ¼ 4
320
4

Fellowship.

Is a rule by which persons trading with a joint stock, ascertain their shares of gain or loss.

Case 1. — Fellowship without time.

Rule. As the whole stock is to the whole gain or loss, so is each man's stock to his share of gain or loss.

A and B commenced trade with £20000 of which A furnished £12000 they gained £1800 what was each man's share of the profit?

£
20000
12000
8000

£	£	£
As 20000	: 1800	:: 12000

12000
20000 ÷ 21600000
A 1080

£	£	£
As 20000	: 1800	:: 8000

8000
20000 14400000
B 720

A draper buys cloth at £s 12 d per yard and sells it at £s 16 2/3 d, what is the gain per cent?

Divide £1000 among three persons A that for every £2 A, has B. shall divide £3. and C £5?

£
2
3
5

As 10 : £1000 :: £2

2
10 ÷ 2000
A 200

£ £ £
As 10 : 1000 :: 3

3
10) 3000
B 300

£ £ £
As 10 : 1000 :: 5

5
10) 5000
C 500

Double Fellowship

Is when the shares are subscribed for different periods of time.

Rule - Multiply each mans money by his time and proceed as in Partnership without time.

F and G enter into partnership F puts in 587 £ 10 s for 12 months, G 3180 £ for 7 months they clear £350 what is each ones gain?

Simple Multiplication

Teaches to find the amount of any number added together any number of times

Rule— Multiply every figure in the line by the number which stands under the units; set down under each figure all above even tens, and add 1 for each ten to the amount of the next figure.

Examples

913426541	617193895
2	5
1826853082	3085969475
87562342	71839819
3	6
262687027	431037491
77401385	8897058077
4	7
309605541	6228306539

121925204 1

8

975401632 8

1048006862

9

9432061758

84639152 7

10

846391527 0

8611051851

11

94721571035

71755381 1

12

861064573 2

712462856

9

6412165704

Case 2nd

When the Multiplier is above 12 and under 20, multiply by the enlarged Table, performing the operation in one line.

Multiply 2894 by 18

18

52092

And 472810 by 13

13

7446530

// 472801 by 14

14

6619214

// 348297 by 15

15

5224455

// 284162 by 16

16

4546592

// 180403 by 17

17

3151851

640036 by 18

18

11520648

300462 by 19

19

5708778

IV Holland Flanders and Germany.

They keep their accounts at Antwerp, Amsterdam, Brussels, Rotterdam, and Hamburg; some in pounds, shillings and pence, as in England; others in guilders, stivers and pennings; and exchange with us in our pound, at 33s 4d Flemish, at par.

8 pennings make 1 groat
2 groats or 16 pennings 1 stiver
20 stivers . . . . . 1 guilder or florin

Also

12 groats or 6 stivers make 1 shelling.
20 shellings or 6 guilders . . . 1 pound

To change Flemish into Sterling

Rule. As the given rate: is to 1 pound :: so is the Flemish sum: to the sterling required.

To change Sterling into Flemish

Rule. As £1 sterling: is to the given rate :: so is the sterling given: to the Flemish sought.

Remitted from London to Amsterdam a bill of £754. 10 sterling, how many pounds Flemish is the sum, the exchange at 33 s. 6. Flemish per pound sterling?

£	s	d		£	s
As 1	: 33	6	: :	754	10
20	12			20	
20	402			15090	
				402	
				30180	
				60360	
20)	6066180				
12)	303309				
20)	25275	9			
£	1263	15	9		

A merchant in Rotterdam, remits £ 1263 · 15 · 9 Flemish to be paid in London, how much sterling money must he draw for, the exchange being at 33 · s 6 Flemish per pound sterling?

s	d		£	s	d
As 33 · 6	:	1	::	1263 · 15 · 9	

12 / 402

20 / 25275

12

402) 303309 (£ 754 · 10 · 0 &c

2814

2190

2010

1809

1608

201

20

402) 4020 (10

4020

If I pay in London £ 852 · 12 · 6 · sterling, how many guilders must I draw for at Amsterdam, exchange at 34 schels. 4½ groats Flemish per pound sterling?

£		schls.	grots	pens.	£	s	d
As 1	:	34 ·	4 ·	4	::	852 ·	12 · 6

20 / 12 / 20

20 / 412 / 17052

12 / 8 / 12

240 / 3300 / 204630

3300

6138900

6138900

240) 675279000 (2813662

48

195

192

3

Questions for Exercise

How many buttons on the coats of a thousand men supposing there are a dozen on each Coat

1000
12
Ans 12000

There are 8766 hours in a year how many are in 5, in 11, in 48, and in 100 years?

Answers 43830. 96426. 420768. 876600.

How many hours has a boy lived who is ten years old?

Ans 87660

How many times will a persons pulse beat in a week or 168 hours, if it beat 3824 times in an hour?

Ans 642432

How many letters in 12 books each book containing 360 pages each page 36 lines and each line 36 letters

Ans 5598720.

Short Division

Simple Division teaches to find hownany times one number is contained in another number. Rule.— Find hownany times the divisor is contained in the first figure of the dividend, and put the figure answering to the number of times under it, as the first figure in the quotient if there be any remainder it shoud be carried, as so many tens and added to the next figure and the amount divided as before. Proceed in the same way to the last figure of the dividend. If the divisor is not contained in the first figure of the dividend take the first two figures. &c

In Division four principal parts are to be observed. 1st The Dividend or number ~~by which~~ given to be divided 2nd The Divisor or number by which you divide 3rd The Quotient or answer to the question and 4th The remainder which is always less than the Divisor and of the same name with the Dividend.

Rule - As the rate of exchange is to 1 crown, so is the sterling sum to the French required.

How much sterling must be paid in London to receive in Paris 758 crowns, exchange 50d per crown?

Crown d Crowns.
As 1 : 50 :: 758

50

45 48

3 7 9 0

12) 4 2 4 4 8

20) 3 5 3 7 · 4

£ 1 7 6 · 17 · 4 Ans

A merchant in London remits £176. 17. 4 to his corrispondent at Paris; what is the value in French crowns, at 56d per crown?

d Crown £ s d
As 56 : 1 :: 176 · 17 · 4

20

3537

12

56) 42448 (758 crowns Ans

392

324

280

448

448

II Spain.

They keep their accounts at Madrid Cadiz and Seville in dollars rials and maravades, exchange by the piece of eight = 4 s. 6 d at par.

34 maravadies make 1 rial { eight piece of
8 rials . . . . . 1 piaster or
10 rials . . . . . 1 dollar.

Rule. As with France.

A merchant in Cadiz remits to London 2547 pieces of eight at 56 d per piece how much sterling is the sum?

	P of Eight	d	P of Eight
As	1	: 56 ::	2547

56

15282

12735

12) 142032

20) 11886.0

£ 594.6.0

How many pieces of eight at 56 d each will answer a bill of £ 594.6.0 sterling?

	d	P of 8	£ s d
As	56	: 1	:: 594.6.0

20

11886

12

56) 142032 (2547

112

306

280

263

224

392

392

£ £ £
7050 : 7050 :: 350
22200
29310

350
352500
21150
29310) 2457500 (£84 3 4½
234480
122700
117240
5460
20
29310) 109200 (3
87930
21270
12
29310) 255240 (8
234480
20700
4
29310) 83040 (2
58020
24420

£ £ £
As 29310 : 22200 :: 350
350
11113000
00780
29310) 7791000 (£265 3 10¼
58020
192900
175800
17040
14055
2985
20
29310) 47770 (10
29310
18390
17580
810

80640 (12
80480
16160
14055
2105

29310) 134200 (4
117240
16960
14655
2305

Two graziers hired a piece of land for £80
A puts in 50 sheeps to graze for 5 months
& 200 sheeps for 3 months what has each
to pay?

sheep		£		sheep
250				
500				
850	:	£80	::	250

250
4000
100
850) 20000 (£23 . 10 . 7
1700
3000
2550
450
20
850) 9000 (10
8500
500
12
850) 6000 (7
5950
50

sheep		£		sheep
As 850	:	80	:	600

600
850) 48000 (£56 . s 9 . d 4 3/4
4250
5500
5100
400
20
850) 8000 (9
7650
350
12
850) 4200 (4
3400
800
4
850) 3200 (3/4
2550
650